

9. 2015 BWNR Annual Report and 2016 State Water Plan

Friday, January 08, 2016
10:39 AM

2015 ANNUAL REPORT
~~and~~
2016 STATE WATER PLAN



South Dakota
Board of
Water and Natural Resources



**DEPARTMENT OF ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov

Governor Dennis Daugaard
and Members of the Ninety-First
Legislative Session

As required by state law, transmitted herewith is the 2015 Annual Report/2016 State Water Plan of the Board of Water and Natural Resources (the Board). The Annual Report describes water development and waste management activities during the past year. The State Water Plan outlines the projects on the State Water Facilities Plan and State Water Resources Management System (SWRMS).

Throughout this document, you will see the on-going needs for water, wastewater, and solid waste projects statewide and how critical state assistance is to construct these projects. During the past year, the board awarded more than \$131.1 million in grant and loan funds for the planning, design, and construction of municipal drinking water, wastewater, watershed restoration, rural water, solid waste disposal, and recycling projects. These awards were a critical link in having environmental projects totaling more than \$188 million moving forward last year. The 2016 State Water Facilities Plan currently includes 56 projects with projected state funding needs of more than \$118 million.

The Department of Environment and Natural Resources (DENR) sincerely appreciates the interest and help of all who have contributed to the success of the State Water Plan. The DENR will continue to work together with the Governor, the Legislature, the Board of Water and Natural Resources and local project sponsors to make the State Water Plan the road map leading to a better environmental future for South Dakota.

Sincerely,

Steven M. Pirner, P.E.
Secretary

BOARD OF WATER AND NATURAL RESOURCES

BRAD JOHNSON, CHAIRMAN
Watertown
Member since 2003

GENE JONES, JR., VICE CHAIRMAN
Sioux Falls
Member since 2002

TODD BERNHARD, SECRETARY
Ft. Pierre
Member since 2010

DR. PAUL GNIRK
New Underwood
Member since 2009

PAUL GOLDHAMMER
Wall
Member since 2010

JACKIE LANNING
Brookings
Member since 2011

JERRY SOHOLT
Sioux Falls
Member since 2014

2015 LEGISLATIVE OVERSIGHT COMMITTEE

Senator Jason Frerichs
Senator Jim White
Representative Mary Duvall
Representative Steve McCleery

Wilmont
Huron
Pierre
Sisseton

**To
Governor Dennis Daugaard
and the
Ninety-First Session, Legislative Assembly
2016**

**2015 ANNUAL REPORT
~~and~~
2016 STATE WATER PLAN**

Board of Water and Natural Resources

January 2016

Table of Contents

TABLE OF CONTENTS	I
LIST OF MAPS	II
PREFACE	III
2015 ANNUAL REPORT	1
Overview	3
Clean Water State Revolving Fund Loan Program.....	3
Drinking Water State Revolving Fund Loan Program	6
Consolidated Water Facilities Construction Program	9
State Revolving Fund Programs – Grant Assistance	12
State Water Resources Management System	16
Watershed Protection – EPA Section 319 Grants.....	17
Solid Waste Management Program.....	18
Brownfields Revitalization and Economic Development Program	20
2015 State Water Development Legislation.....	22
2016 STATE WATER PLAN	23
Overview	25
State Water Facilities Plan	25
State Water Resources Management System	35
SWRMS Project Status	36
Belle Fourche Irrigation Upgrade Project - 2012	36
Big Sioux Flood Control Study (Watertown & Vicinity) – 1989	37
CENDAK Irrigation Project – 1982.....	38
Gregory County Pumped Storage Project – 1981.....	38
Hydrology and Water Management Studies – (2015 - Present)	39
Black Hills Hydrology and Water Management Study – (1982 – 2015).....	39
Lake Andes-Wagner/Marty II Irrigation Unit – 1975	41
Lewis & Clark Regional Water System – 1989	42
Mni Wiconi Rural Water System – 1989.....	45
Perkins County Rural Water System – 2004	48
Sioux Falls Flood Control Project – 1989	50
Southern Black Hills Water System – 2006.....	52
Vermillion Basin Flood Control Project – 1987	53
Recommendations to the Governor and State Legislature	55
APPENDIX A	57
Water and Environment Fund Special Condition Statement	57
APPENDIX B.....	61
Board of Water and Natural Resources Resolutions	61

List of Tables

<u>TABLE</u>	<u>PAGE</u>
TABLE 1 – 2015 CLEAN WATER STATE REVOLVING FUND LOAN AWARDS	4
TABLE 2 – 2015 DRINKING WATER STATE REVOLVING FUND LOANS AWARDS	7
TABLE 3 – 2015 CONSOLIDATED AWARDS.....	9
TABLE 4 – 2015 STATE REVOLVING FUND GRANT ALLOCATIONS	12
TABLE 5 – 2015 STATE REVOLVING FUND PROGRAMS GRANT AWARDS	14
TABLE 6 – 2015 STATE WATER RESOURCES MANAGEMENT SYSTEM AWARDS	16
TABLE 7 - 2015 EPA SECTION 319 GRANTS.....	17
TABLE 8 - 2015 EPA SECTION 319 GRANT AMENDMENTS.....	17
TABLE 9 - 2015 SOLID WASTE MANAGEMENT AND REGIONAL LANDFILL ASSISTANCE AWARDS	18
TABLE 10 - 2015 BROWNFIELDS ASSESSMENT AND CLEANUP PROJECTS.....	21
TABLE 11 - 2016 STATE WATER FACILITIES PLAN FUNDED PROJECTS	26
TABLE 12 - 2016 STATE WATER FACILITIES PLAN UNFUNDED PROJECTS	32
TABLE 13 – STATE WATER RESOURCES MANAGEMENT SYSTEM PROJECTS.....	35
TABLE 14 – BOARD OF WATER AND NATURAL RESOURCES FUNDING RECOMMENDATIONS	55

List of Maps

<u>MAP</u>	<u>PAGE</u>
MAP 1 – CLEAN WATER STATE REVOLVING FUND RECIPIENTS.....	6
MAP 2 – DRINKING WATER STATE REVOLVING FUND RECIPIENTS	9
MAP 3 – CONSOLIDATED PROGRAM GRANT/LOAN RECIPIENTS	11
MAP 4 –WATERSHED/CONSTRUCTION GRANT RECIPIENTS	14
MAP 5 - SOLID WASTE MANAGEMENT PROGRAM GRANT/LOAN RECIPIENTS	20

Preface

The purpose of this document is to fulfill the statutory requirements placed on the Board of Water and Natural Resources. These requirements are generally outlined as follows:

SDCL 46A-2-2. *To prepare and submit to the Governor and Legislature a yearly progress report on the State Water Plan*

SDCL 46A-1-10. *To make recommendations to the Governor and Legislature concerning projects for the State Water Resources Management System*

SDCL 46A-1-14. *To make an annual report on all activities during the preceding year and funding recommendations necessary to implement the water plan*

This report consists of two principal sections – the 2015 Annual Report and the 2016 State Water Plan. The annual report provides progress reports on each funding program and other board activities during calendar year 2015.

The water plan section sets forth the projects included on the State Water Facilities Plan and the State Water Resources Management System. A Water and Environment Fund Special Condition Statement that projects the status of the Water and Environment Fund at the end of fiscal year 2016 is included in Appendix A. A copy of the resolutions approved by the Board of Water and Natural Resources that provide recommendations to the Governor and the Legislature for the designation of projects on the State Water Resources Management System and the recommended Water and Environment Fund fiscal year 2017 appropriation levels are included in Appendix B.

2015 Annual Report

Board of Water and Natural Resources

Overview

South Dakota Codified Law 46A-1-14 requires an annual report of the Board of Water and Natural Resources (the board). The report summarizes the board's 2015 activities, including a detailed account of Water and Environment Fund grant and loan awards.

In November 2014, the board placed 33 projects on the 2015 State Water Facilities Plan. This made the projects eligible for financial assistance from a variety of federal and state sources. During the year, the board amended an additional 20 projects onto the plan.

The board awarded more than \$130.7 million in grant and loan funds to finance municipal drinking water systems, rural water systems, wastewater facilities, watershed restoration, solid waste disposal, and recycling activities. These awards resulted in more than \$188 million in total activity. The loan and grant funds helped provide South Dakotans with safe and dependable environmental infrastructure.

Clean Water State Revolving Fund Loan Program

In 1989, the Clean Water State Revolving Fund (SRF) loan program began providing low-interest loans to governmental entities including municipalities, sanitary districts, and other special purpose districts. The loans are used for construction of wastewater facilities, storm sewers, and nonpoint source pollution control projects. During 2015, the board approved 22 loans totaling nearly \$59.5 million (Table 1).

The base interest rates for the Clean Water SRF program were 2.25 percent for loans up to 10 years, 3.0 percent for up to 20 years, 3.25 percent for up to 30 years, and an interim financing rate of 2.0 percent for up to five years. The program's nonpoint source incentive rates are 1.25 percent for loans with a term of 10 years or less, 2.0 percent for loans with a term up to 20 years, and 2.25 percent for loans with a term up to 30 years. Projects for traditional wastewater or stormwater projects that include a nonpoint source component may receive the nonpoint source rate. The annual principal and interest payments are calculated for a loan at the higher base interest rate. Using the lower nonpoint source interest rate, a loan is sized using the annual payment previously calculated. The difference in the two loan amounts is the amount of funding available for the nonpoint source component of the project.

The federal fiscal year 2015 appropriations bill for the Clean Water SRF program initiated several of the requirements set forth in the Water Resources Reform and Development Act. These requirements involve 1) applying Davis-Bacon wage rates to all projects awarded in fiscal year 2015; 2) requiring that not less than 10 percent of the 2015 capitalization grant be utilized

for “green” projects; 3) requiring that a portion of the capitalization grant be made available as additional subsidy; 4) requirements for American Iron and Steel products to be used for all projects awarded on or after January 17, 2014; 5) adoption of affordability criteria by the state for principal forgiveness eligibility; and 6) requirements for procurement of architectural and engineering services.

The board uses principal forgiveness as the method to provide the additional subsidy. Municipalities and sanitary districts with monthly residential wastewater rates of \$30 per month (based on 5,000 gallons usage or flat rate for wastewater) are eligible to receive principal forgiveness. Other applicants are required to have residential wastewater rates of \$40 per month (based on 5,000 gallons usage or a flat rate) to be eligible to receive principal forgiveness. Applicants must also meet the state’s affordability criteria to be eligible to receive principal forgiveness.

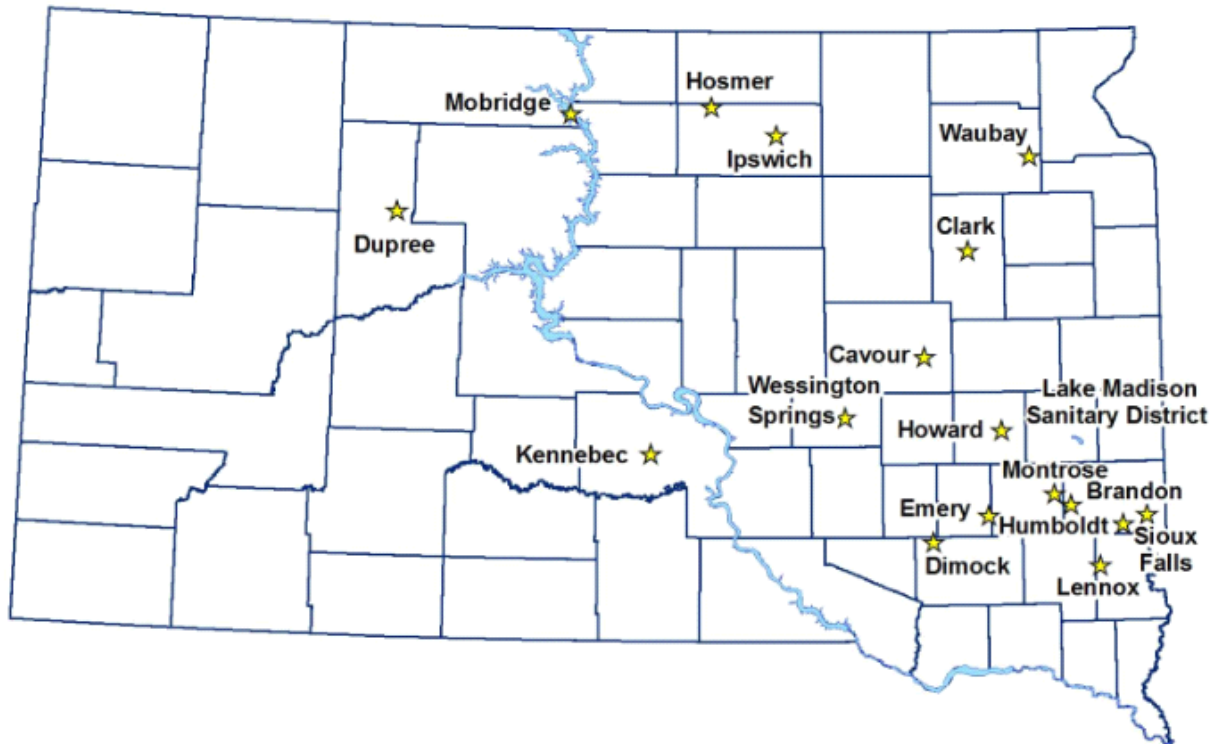
Table 1 – 2015 Clean Water State Revolving Fund Loan Awards

<u>Sponsor</u>	<u>Description</u>	<u>Total Award</u>	<u>Principal Forgiveness</u>	<u>Interest Rate</u>	<u>Term</u>
Brandon (CW-05)	Sanitary Sewer System Improvements	\$3,000,000		3.25%	30
Cavour (CW-01)	Lift Station and Forcemain Replacement	\$150,000		3.25%	30
Clark (CW-02)	Wastewater Treatment Facilities Improvements	\$2,485,000		3.25%	30
Dimock (CW-01)	Wastewater Treatment Facilities Improvements	\$478,000		3.25%	30
Dupree (CW-02)	Wastewater Treatment and Lift Station Improvements	\$192,000		3.25%	30
Emery (CW-01)	Wastewater Collection Replacement	\$3,084,000	\$1,871,000	3.25%	30
Hosmer (CW-01)*	Wastewater Treatment Facilities Improvements	\$968,000	\$714,400	3.25%	30
Howard (CW-01)	Wastewater Televising and Lagoon Expansion	\$1,764,000		3.25%	30
Humboldt (CW-01)	Wastewater Collection and Treatment Improvements	\$417,200		3.25%	30

<u>Sponsor</u>	<u>Description</u>	<u>Total Award</u>	<u>Principal Forgiveness</u>	<u>Interest Rate</u>	<u>Term</u>
Ipswich (CW-01)*	Wastewater Collection Improvements	\$1,951,000		3.25%	30
Kennebec (CW-01)	Wastewater Collection and Treatment Improvements	\$723,000		3.25%	30
Kennebec (CW-02)	Wastewater Collection and Treatment Improvements	\$437,000		3.25%	30
Lake Madison Sanitary District (CW-03)	Lift Station and Forcemain Replacement	\$428,000		3.25%	30
Lennox (CW-06)	Storm and Sanitary Sewer Improvements	\$1,873,000		3.25%	30
Mobridge (CW-05)	Wastewater Treatment Facility Improvements	\$1,475,000		3.0%	20
Montrose (CW-03)	Storm Sewer Improvements	\$545,000	\$100,000	3.25%	30
Sioux Falls (CW-35)	Brandon Road Lift Station Parallel Forcemain	\$11,400,000		1.25%	10
Sioux Falls (CW-35NPS)	Big Sioux Watershed Restoration Project	\$579,457		1.25%	10
Sioux Falls (CW-36)	Outfall Sewer Replacement	\$24,800,000		1.25%	10
Sioux Falls (CW-36NPS)	Big Sioux Watershed Restoration Project	\$1,260,000		1.25%	10
Waubay (CW-03)	Wastewater Treatment Facility Improvements	\$1,080,000	\$500,000	3.25%	30
Wessington Springs (CW-01)	Wastewater Collection Improvements	\$393,000		3.0%	20
Total		\$59,482,657	\$3,185,400		

*Deobligated prior to December 31, 2015

Map 1 – Clean Water State Revolving Fund Recipients



Drinking Water State Revolving Fund Loan Program

In 1998, the Drinking Water State Revolving Fund (SRF) loan program began providing low-interest loans to nonprofit corporations and governmental entities including municipalities, sanitary districts, and other special districts for the construction of drinking water facilities. In 2015, 18 loans were approved totaling more than \$32.0 million (Table 2).

The base interest rates for the Drinking Water SRF program were 2.25 percent for terms up to 10 years, 3.0 percent for up to 20 years, 3.25 percent for up to 30 years, and an interim financing rate of 2.0 percent for up to five years.

Disadvantaged communities are eligible to extend the repayment period from 20 to 30 years and may receive an interest rate below the base rate. To qualify as disadvantaged, the water system's monthly residential water bill must be at least \$30 per 5,000 gallons usage for municipalities and sanitary districts or \$55 per 7,000 gallons usage for all other community water systems.

Additionally, the median household income of the community must be below the statewide median household income (MHI). Communities with a median household income less than the MHI but greater than 80 percent of the MHI are eligible for an extended 30-year term loan at the base rate of 3.0 percent interest. Communities with a household income between 60 percent and 80 percent of the MHI are eligible for an extended 30-year term loan at 2.25 percent interest and a 10-year loan at 1.25 percent interest. An average household income less than 60 percent of the MHI is necessary to be eligible for an extended 30-year term loan at zero percent interest.

The federal fiscal year 2015 appropriations bills for the SRF programs extended several of the requirements set forth in the American Recovery and Reinvestment Act and subsequent SRF appropriation bills. These requirements involve 1) applying Davis-Bacon wage rates to all projects awarded in fiscal year 2015; 2) requiring that a portion of the 2015 capitalization grant be made available as additional subsidy; and 3) requirements for American Iron and Steel products to be used for all projects awarded on or after January 17, 2014.

The board uses principal forgiveness as the method to provide the additional subsidy. Municipalities and sanitary districts with monthly residential water rates of \$30 per month (based on 5,000 gallons usage) are eligible to receive principal forgiveness. Other applicants are required to have residential water rates of \$55 per month (based on 7,000 gallons usage) to be eligible to receive principal forgiveness.

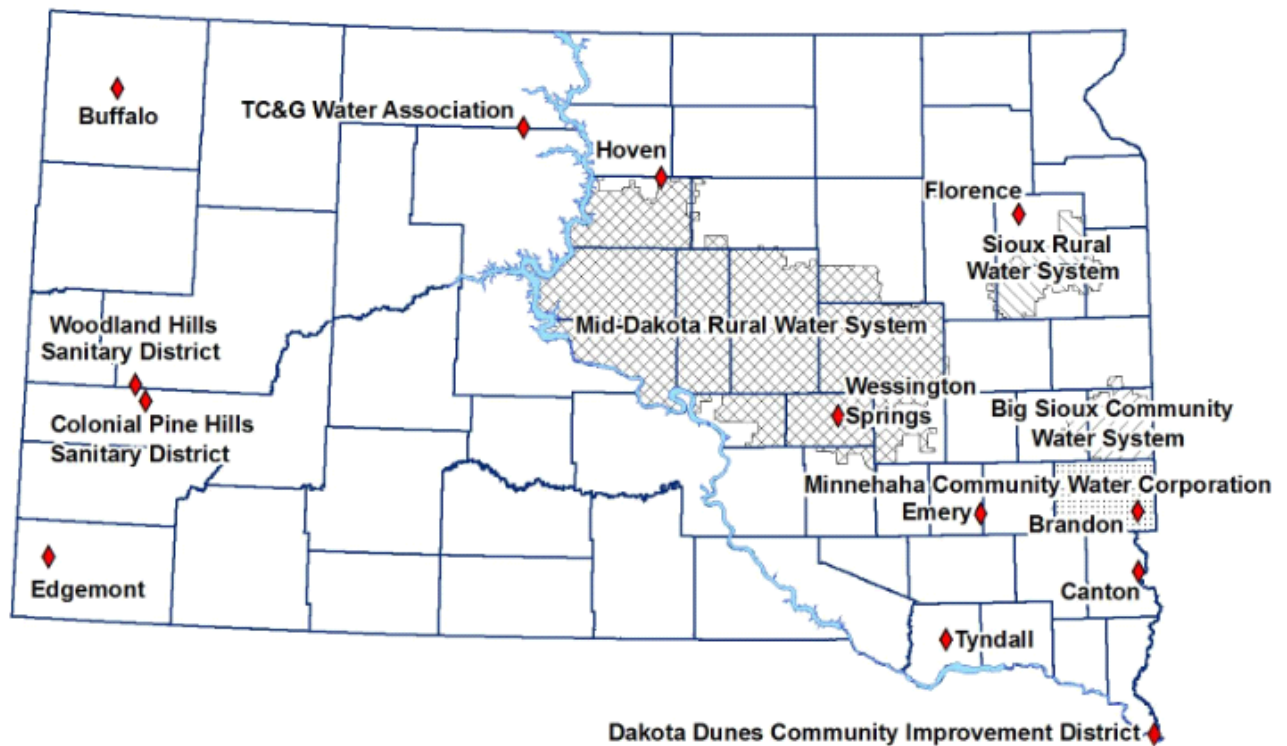
Table 2 – 2015 Drinking Water State Revolving Fund Loans Awards

<u>Sponsor</u>	<u>Description</u>	<u>Total Award</u>	<u>Principal Forgiveness</u>	<u>Interest Rate</u>	<u>Term</u>
Big Sioux Community Water System (DW-03)	Connection to MCWC and City of Madison	\$1,014,000		3.0%	20
Brandon (DW-02)	Water Distribution and Storage Improvements	\$12,425,000	\$500,000	3.0%	20
Buffalo (DW-01)	Water Distribution Improvements	\$1,695,000	\$600,000	2.25%	30
Canton (DW-02)	Well Replacement Project	\$1,550,000		3.0%	30
Colonial Pine Hills Sanitary District (DW-04)	Microfiltration System Installation	\$400,000		3.0%	20
Dakota Dunes Community Improvement District (DW-02)	Clear Well Expansion	\$1,600,000		3.0%	20
Edgemont (DW-01)	Water System Upgrades	\$1,890,000	\$1,206,890	0%	30
Emery (DW-01)	Watermain Replacement	\$1,585,000		3.0%	30

<u>Sponsor</u>	<u>Description</u>	<u>Total Award</u>	<u>Principal Forgiveness</u>	<u>Interest Rate</u>	<u>Term</u>
Florence (DW-01)	Water Distribution Improvements	\$688,000		3.25%	30
Florence (DW-02)	Water Distribution Improvements	\$567,000		3.25%	30
Hoven (DW-02)	Highway 47 Watermain Replacement	\$264,750	\$264,750	0%	0
Mid-Dakota Rural Water System (DW-05)	Automatic Meter Installation	\$2,535,000		3.0%	15
Minnehaha Community Water Corporation (DW-02)*	Connection to Big Sioux RWS and City of Madison	\$900,000		3.0%	20
Sioux Rural Water System (DW-01)	Water System Improvements and System Expansion	\$2,515,000		3.0%	20
TC&G Water Association (DW-01)	Water System Improvements	\$210,000		2.25%	30
Tyndall (DW-03)	Water Distribution and Storage Improvements	\$1,570,000	\$200,000	2.25%	30
Wessington Springs (DW-01)	Water Distribution Improvements	\$209,000		2.25%	30
Woodland Hills Sanitary District (DW-02)	Water Distribution Improvements	\$481,000	\$384,800	3.0%	20
Total		\$32,098,750	\$3,156,440		

* Deobligated prior to December 31, 2015

Map 2 – Drinking Water State Revolving Fund Recipients



Consolidated Water Facilities Construction Program

The 2015 State Legislature appropriated \$16.5 million for the Consolidated Water Facilities Construction Program to provide grants and loans for water development projects on the State Water Facilities Plan. Additionally, prior year funding and reversions were available for award in 2015.

The board awarded 22 grants, 1 grant amendment and 2 loans totaling more than \$21.0 million (Table 3). The 2015 awards leveraged \$44.4 million in total project activities.

Table 3 – 2015 Consolidated Awards

<u>Sponsor</u>	<u>Description</u>	<u>Grant Amount</u>	<u>Loan Amount</u>	<u>Total Project</u>
Bear Butte Valley Water, Inc.*	Regional Water System Construction	\$500,000		\$7,000,000
Big Sioux Community Water System	Connection to MCWC and City of Madison	\$2,000,000		\$3,014,700

<u>Sponsor</u>	<u>Description</u>	<u>Grant Amount</u>	<u>Loan Amount</u>	<u>Total Project</u>
Clark	Wastewater Treatment Facilities Improvements	\$4,000,000		\$7,000,000
Dupree	Wastewater Treatment and Lift Station Improvements	\$48,000		\$1,117,450
Edgemont	Water System Upgrades	\$2,000,000		\$3,890,000
Emery	Watermain Replacement	\$615,000		\$2,221,587
Florence	Water Distribution Improvements	\$1,000,000		\$2,355,000
Haakon County School District	Geothermal Wastewater Treatment System	\$517,600		\$647,000
Hosmer**	Wastewater Treatment Facilities Improvements	\$300,000		\$1,268,000
Hoven	Highway 47 Watermain Replacement	\$88,250		\$353,000
Humboldt	Wastewater Collection and Treatment Improvements	\$1,668,800		\$2,086,000
Ipswich**	Wastewater Collection Improvements	\$2,000,000		\$3,951,000
James River Water Development District***	Lewis & Clark Implementation	\$275,000		\$1,833,333
Lennox	Storm and Sanitary Sewer Improvements	\$560,000		\$2,733,000
Lesterville	Water Meter Replacement	\$26,500	\$26,500	\$53,000
Minnehaha Community Water Corp.	Connection to Big Sioux RWS and City of Madison	\$900,000		\$1,800,000
Northville	Storm Sewer Improvements		\$140,000	\$140,000
Rapid City	Canyon Lake Sediment Removal	\$155,000		\$415,000
Sioux Rural Water System	Water System Improvements and System Expansion	\$2,000,000		\$4,564,600
TC&G Water Association	Water System Improvements	\$1,390,000		\$2,100,000
Waubay	Wastewater Treatment Facility Improvements	\$700,000		\$2,195,820

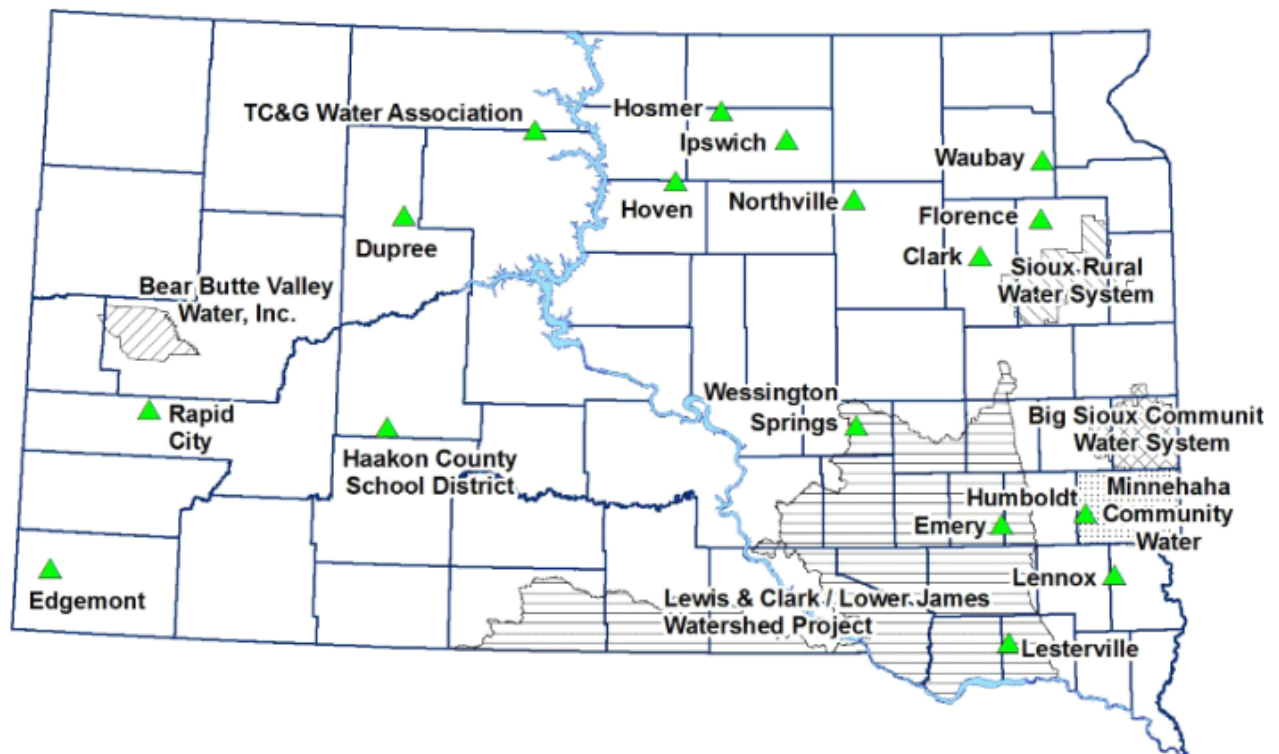
<u>Sponsor</u>	<u>Description</u>	<u>Grant Amount</u>	<u>Loan Amount</u>	<u>Total Project</u>
Wessington Springs	Water Distribution Improvements	\$50,000		\$259,600
Wessington Springs	Wastewater Collection Improvements	\$50,000		\$443,000
Totals		\$20,844,150	\$166,500	\$44,441,090

* Amendment to prior year Consolidated award

** Deobligated prior to December 31, 2015

*** Originally obligated to Randall RC&D in January 2015; the project funding was transferred to James River WDD in June 2015

Map 3 – Consolidated Program Grant/Loan Recipients



State Revolving Fund Programs – Grant Assistance

In 2015, the board allocated additional funds under both the Clean Water and Drinking Water state revolving fund programs for planning, technical assistance, and construction activities. The board's 2015 intended use plans approved the use of \$1,825,000 in Clean Water and Drinking Water funds for grants (Table 4).

Table 4 – 2015 State Revolving Fund Grant Allocations

<u>Activity</u>	<u>Source</u>	<u>Amount</u>
Water Quality Grants	Clean Water SRF Admin Surcharge	\$1,000,000
Small System Technical Assistance Grants	Drinking Water SRF Set-Aside	\$200,000
SRF Application Preparation and Administration	Clean Water SRF & Drinking Water SRF Admin Surcharge	\$300,000
Drinking Water Operator Certification Training	Drinking Water SRF Admin Surcharge	\$75,000
Very Small System Compliance and Public Health Grants	Drinking Water SRF Admin Surcharge	\$250,000
		<hr/>
		Total \$1,825,000

During 2015, the board approved 26 Water Quality or Technical Assistance awards totaling nearly \$1.5 million (Table 5). The narrative sections below describe the general categories of the state revolving fund programs grant assistance and provide updates for on-going activities supported by this funding.

Water Quality Watershed/Construction Grants: The board provided additional grant assistance from Clean Water Administrative Surcharge fees to supplement the Consolidated and Section 319 grant awards. The construction of wastewater treatment, collection, or conveyance projects and watershed restoration projects are eligible uses for these fees, and its use allows additional projects to be completed.

Water Quality Planning Grants: The Small Community Planning Grant Program was established to encourage proactive planning by small communities and systems. Grants are available for the preparation of a wastewater or stormwater engineering study or rate analysis for systems serving populations of 2,500 or less. For engineering studies, participating systems are reimbursed 80 percent of the cost, up to \$10,000. For wastewater utility rate analysis reviews, participating systems are reimbursed 80 percent of the cost, up to \$1,600.

Technical Assistance Grants: Small Community Planning Grants are also available for the preparation of a drinking water engineering study or rate analysis for systems serving populations of 2,500 or less. Participating systems are reimbursed 80 percent of the cost, up to \$8,000, for engineering studies. For drinking water utility rate analysis reviews, participating systems are reimbursed 80 percent of the cost, up to \$1,600.

The board continued its technical assistance contract with the South Dakota Association of Rural Water Systems (Rural Water) in 2015. Rural Water provides assistance to small drinking water systems serving populations of 10,000 or less with compliance, permitting, and operational issues. In 2015, the Midwest Assistance Program conducted capacity assessments and follow-up reviews to assist the department in ensuring that all borrowers demonstrate the required technical, financial, or managerial capacity to access Drinking Water SRF loan assistance.

In 2015, the board provided \$75,000 for operator certification training. These funds are used for operator certification training of drinking water system operators. During state fiscal year 2015, 485 operators were provided training.

In 2015, the board allocated \$250,000 for grants to assist very small systems in violation of the Safe Drinking Water Act, excluding the Total Coliform Rule. These funds will be limited to community systems with 50 or less connections and not-for-profit, non-transient, non-community water systems. Funds will be provided for infrastructure projects as 100 percent grants up to a maximum of \$50,000 and for total project costs less than \$100,000. No very small system compliance grants were awarded in 2015.

The board continued to provide assistance to the state's six planning districts for preparation of applications and ongoing loan administration activities to include Davis-Bacon wage rate compliance. The planning districts all have joint powers agreements to receive up to \$9,000 per loan for application and loan administration duties and up to \$1,100 per loan for Davis-Bacon wage rate compliance. An additional \$74,000 was placed under agreement with the planning districts in 2015.

In 2015, East Dakota Water Development District (EDWDD) continued its work with the South Dakota Association of Rural Water Systems and the South Dakota Geological Survey to reassess and update existing well head protection areas previously delineated for public water supply well fields utilizing shallow aquifers. The study area includes the ten counties in the EDWDD, Marshall County, and Clay County. The project will collect current data on all functioning well fields, install observation wells as needed and collect current water table elevation information, update the well head protection area delineations to reflect current conditions, and promote the adoption/updating of local groundwater protection ordinances by the individual counties.

Table 5 – 2015 State Revolving Fund Programs Grant Awards
Watershed/Construction Grant Awards

<u>Sponsor</u>	<u>Project</u>	<u>Grant Amount</u>
Cavour	Wastewater Improvements	\$645,000
James River Water Development District*	Lewis & Clark Implementation	\$100,000
Moody County Conservation District	Big Sioux River Watershed Implementation	\$100,000
Pennington County	Spring Creek Watershed Implementation	\$100,000
South Dakota Grasslands Coalition*	Grassland Management & Planning	\$100,000
Total		\$1,045,000

* Amendment to prior year Water Quality grant award.

Map 4 –Watershed/Construction Grant Recipients

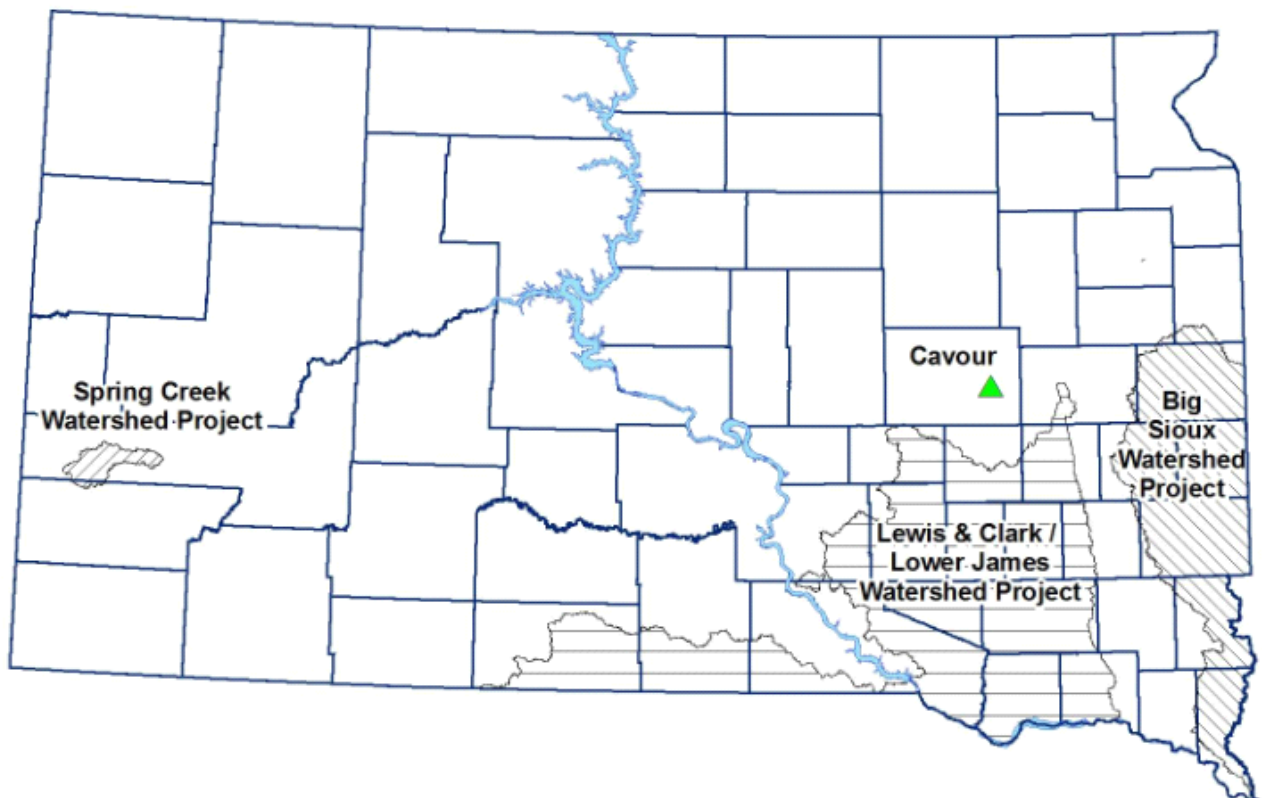


Table 5 (continued)*Small Community Planning Grant Awards*

<u>Sponsor</u>	<u>Project</u>	<u>Grant Amount</u>
Blunt	Water System Improvements Study	\$8,000
Canistota	Stormwater Management Study	\$10,000
Dimock	Wastewater System Improvements Study	\$4,480
Dimock	Water System Improvements Study	\$1,920
Keystone	Water System Improvements Study	\$8,000
Langford	Water System Improvements Study	\$8,000
Martin	Water System Improvements Study	\$8,000
Midland	Water System Improvements Study	\$8,000
Monroe	Sanitary Sewer System Improvements Study	\$9,600
Onida	Wastewater System Improvements Study	\$10,000
Platte	Water System Improvements Study	\$8,000
Tabor	Sanitary Sewer Improvements Study	\$10,000
Volga	Water System Improvements Study	\$8,000
Wagner	Stormwater Management Study	\$8,000
Wakonda	Storm Sewer Improvements Study	\$8,000
Wakonda	Water System Improvements Study	\$8,000
Total		\$126,000

Table 5 (continued)*Technical Assistance Awards*

<u>Sponsor</u>	<u>Project</u>	<u>Award</u>
Black Hills Council of Local Governments*	Amendment to SRF Application and Administration and to Davis-Bacon Wage Rate Administration	\$52,000
Central South Dakota Enhancement District*	Amendment to SRF Application and Administration and to Davis-Bacon Wage Rate Administration	\$22,000
Department of Environment and Natural Resources	Drinking Water Operator Certification Training	\$75,000
Midwest Assistance Program	Small System Capacity Assessments	\$49,700
SD Association of Rural Water Systems	Small System Technical Assistance	\$120,000
Total		\$318,700

* Amendment to prior year Technical Assistance award.

State Water Resources Management System

On March 12, 2015, Governor Dugaard signed the 2015 Omnibus Bill (Senate Bill 173) which appropriated \$7,700,000 million for the Lewis & Clark Regional Water System and \$250,000 for Statewide Hydrology and Water Management Studies, which are projects on the State Water Resources Management System (SWRMS) list. Information on individual SWRMS project accomplishments and activities is provided in the State Water Plan section (pages 35-54). During the year, the board placed the following amounts under agreement (Table 6).

Table 6 – 2015 State Water Resources Management System Awards

<u>Project</u>	<u>Amount</u>	<u>Type</u>
Department of Environment and Natural Resources – Aquifer Isotope Analysis in Eastern South Dakota	\$47,000	Grant
Lewis & Clark Regional Water System	\$7,700,000	Loan
Total	\$7,747,000	

Watershed Protection – EPA Section 319 Grants

The South Dakota Watershed Protection Program is designed to assess nonpoint water pollution sources and to reduce or eliminate their impact on water quality throughout the state. Nonpoint source refers to the polluted run-off from urban, agriculture, and forest lands. The program provides technical and financial assistance to local watershed project sponsors in the planning and management of assessment and implementation projects. Additionally, the program administers state and federal grants, monitors the effectiveness of implementation projects, and funds information and education activities. Applications for Section 319 grants must be approved by the board prior to submission to EPA. In 2015, the board recommended that EPA award \$1.89 million in federal fiscal year 2015 funding to watershed projects (Table 7).

Table 7 - 2015 EPA Section 319 Grants

<u>Sponsor</u>	<u>Project</u>	<u>Amount</u>	<u>Total Project</u>
Belle Fourche Watershed Partnership	Belle Fourche River Watershed	\$793,000	\$2,516,900
James River Water Development District*	Lewis & Clark Implementation	\$300,000	\$3,069,160
Moody County Conservation District	Big Sioux River Implementation	\$500,000	\$8,760,400
Pennington County	Spring Creek Watershed Project	\$115,000	\$397,000
South Dakota Grasslands Coalition	Grassland Management & Planning	\$179,000	\$778,715
Total		\$1,887,000	\$15,522,175

* Originally obligated to Randall RC&D; the project funding was transferred to James River WDD in June 2015

Throughout the year, the department works with EPA to reallocate deobligated prior year funds. Table 8 contains a list of grants that were awarded to existing project sponsors during the calendar year 2015.

Table 8 - 2015 EPA Section 319 Grant Amendments

<u>Sponsor</u>	<u>Project</u>	<u>Amount</u>	<u>Total Project</u>
James River Water Development District*	Lewis & Clark Implementation	\$58,027	\$3,069,160
James River Water Development District	Lewis & Clark Implementation	\$179,958	\$3,069,160
Moody County Conservation District	Big Sioux River Implementation	\$153,194	\$8,760,400

<u>Sponsor</u>	<u>Project</u>	<u>Amount</u>	<u>Total Project</u>
South Dakota Association of Conservation Districts	303(d) Watershed Planning & Assistance	\$248,000	\$3,102,517
Total		\$639,179	\$14,932,077

* Originally obligated to Randall RC&D; the project funding was transferred to James River WDD in June 2015

Solid Waste Management Program

The 2015 State Legislature appropriated \$2,300,000 for the Solid Waste Management Program (SWMP). These appropriations, combined with reverted and unobligated prior year funding, resulted in more than \$3.55 million being available for grants and loans for recycling, waste tire, and solid waste disposal projects.

These programs are supported by three funding sources – a \$0.75 per ton landfill surcharge on municipal solid waste, a \$0.25 per tire vehicle registration fee, and principal and interest payments from past solid waste loan awards. A minimum of 50 percent of the SWMP funds appropriated is reserved for recycling activities.

The board awarded eight grants and four loans in 2015, totaling nearly \$3 million (Table 9). Of these awards, two were for recycling, four were for solid waste disposal, and five were for regional landfills. SWMP awards helped leverage nearly \$4 million in total project activities.

Table 9 - 2015 Solid Waste Management and Regional Landfill Assistance Awards

		<i>Disposal</i>		
<u>Sponsor</u>	<u>Description</u>	<u>Loan Amount</u>	<u>Grant Amount</u>	<u>Total Project</u>
Northwest SD Regional Landfill	Equipment and Facility Upgrades	\$164,800	\$247,200	\$412,000
South Eastern Council of Governments	Regional Revolving Loan Fund Capitalization		\$250,000	\$312,500
Tri-County Landfill Association	Equipment and Vehicle Cold Storage Building	\$133,760		\$167,200
Yankton	Transfer Station Entrance Reconfiguration and Scale Replacement	\$159,736	\$300,000	\$750,000
Total		\$458,296	\$797,200	\$1,641,700

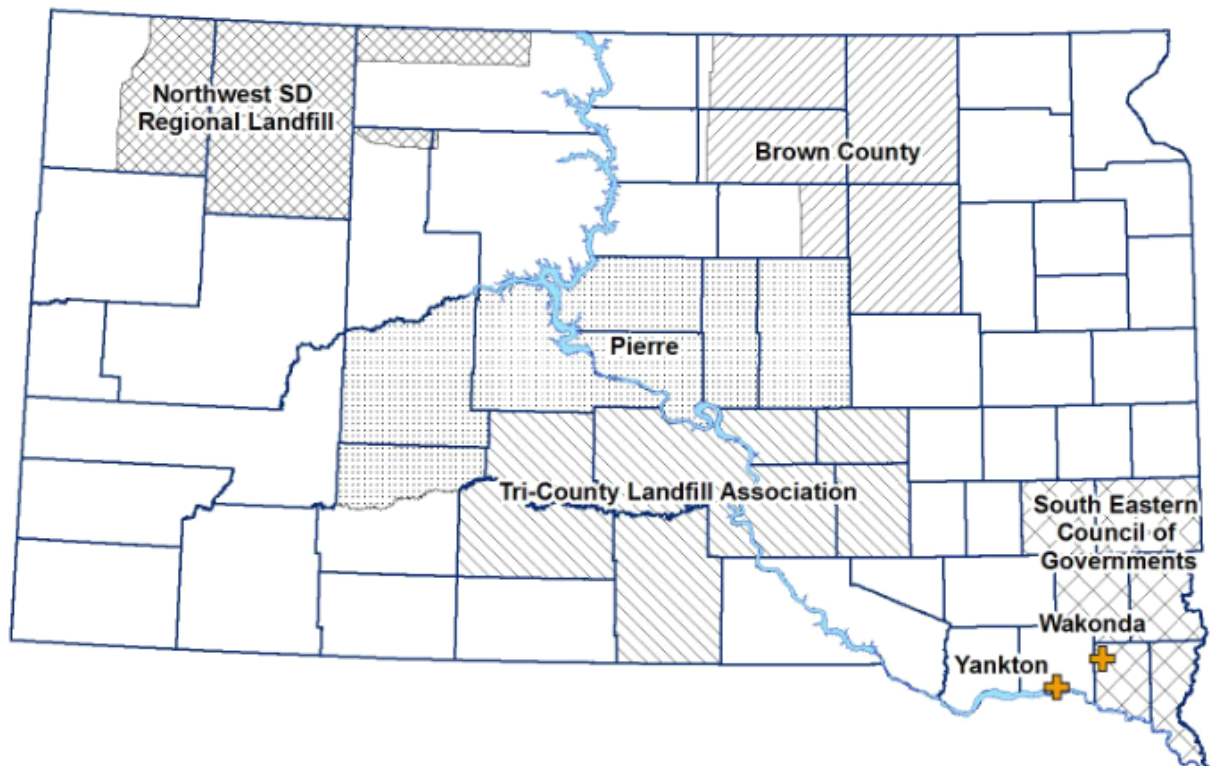
Recycling

<u>Sponsor</u>	<u>Description</u>	<u>Loan Amount</u>	<u>Grant Amount</u>	<u>Total Project</u>
South Eastern Council of Governments	Regional Revolving Loan Fund Capitalization		\$250,000	\$312,500
Wakonda	Recycling Drop-Off Trailer Purchase		\$7,773	\$9,716
		Total	\$0	\$257,773
				\$322,216

Regional Landfill

<u>Sponsor</u>	<u>Description</u>	<u>Loan Amount</u>	<u>Grant Amount</u>	<u>Total Project</u>
Brown County	Landfill Scraper Purchase		\$231,000	\$770,494
DENR	Waste Tire and Other Solid Waste Cleanups		\$350,000	\$350,000
Pierre	Landfill Baler Replacement	\$245,000	\$330,000	\$825,000
Tri-County Landfill Association	Equipment and Vehicle Cold Storage Building		\$33,440	\$167,200
Yankton	Transfer Station Entrance Reconfiguration and Scale Replacement	\$290,264		\$750,000
		Total	\$535,264	\$944,440
				\$2,862,694

Map 5 - Solid Waste Management Program Grant/Loan Recipients



Brownfields Revitalization and Economic Development Program

The 2003 South Dakota Legislature followed the federal Brownfields Act and established a state Brownfields Revitalization and Economic Development Program within the Department of Environment and Natural Resources (the department). The purpose of the Brownfields program is to complete environmental assessments and cleanups so that local governments can put contaminated lands back into productive, beneficial use and complete projects that are necessary to revitalize local economies. The 2003 bill created two subfunds: a Brownfields revolving loan subfund and a Brownfields assessment and cleanup subfund. The board approves annual work plans for both subfunds. The department agreed to use existing staff to administer this program.

While the department has made application for federal funding, the U.S. Environmental Protection Agency has not awarded South Dakota any federal funds for the Brownfields revolving loan subfund. Therefore, there has been no activity in this subfund. EPA has advised the department that until potential applicants are identified, the department will not be eligible for federal revolving loan funds.

The department has used both federal Brownfields grants and federal Leaking Underground Storage Tank Trust Funds to complete environmental assessments and cleanups of Brownfields projects statewide. Projects are limited by federal Brownfields law to \$200,000 for assessment and \$200,000 for clean up unless a waiver is granted by EPA. Brownfields projects are nominated by local project sponsors and approved by the board. Table 10 contains a list of all the Brownfields projects approved by the board in calendar year 2015. The Brownfields process is an extremely useful tool to help assess and clean up contaminated lands statewide and move forward with economic development projects that are a high local priority.

Table 10 - 2015 Brownfields Assessment and Cleanup Projects

<u>Applicant</u>	<u>Site Name and Location</u>	<u>Activity</u>	<u>Land After Clean Up</u>	<u>Amount*</u>
Colman	Utility Project	Assessment & Cleanup	Public	\$4,607
Harding County	Harding County Airport	Assessment & Cleanup	Public	\$31,528
Highmore	Utility Project	Assessment & Cleanup	Public	\$46,757
Howard	Behm's Service and Utility Project	Assessment & Cleanup	Commercial	\$157,236
Huron Economic Development	Former Huron Water Treatment Plant	Assessment	Public	\$12,712
Jerkin's Living Center	Former St. Martin's Church	Cleanup	Health Care /Commercial	\$61,988
Kadoka School District	Former Ponderosa Campground	Assessment & Cleanup	Public School	\$33,024
Dakota State University	Former Madison Community Hospital	Assessment	Public	\$0
Pierre	City Well VOC Impact	Assessment & Cleanup	Public	\$474,917
			Total	\$822,769

* Accumulative costs as of September 30, 2015

2015 State Water Development Legislation

On March 12, 2015, Governor Daugaard signed Senate Bill 173, the Omnibus Water Funding Bill. The 2015 Omnibus Bill contained the following appropriations:

Appropriations from the Water and Environment Fund

- Consolidated Water Facilities Construction Program – \$16,500,000 to provide grants and loans for community drinking water, wastewater, and watershed improvement projects;
- Lewis & Clark Regional Water System – \$7,700,000 loan for engineering design, preconstruction, and construction of the facilities associated with constructing pipe segments 1 and 5 of the water supply line to Madison;
- Statewide Hydrology and Water Management Studies - \$250,000 grant to provide funding for local sponsors to assess, model and quantify the state's surface water and groundwater resources for current and future generations.
- Solid Waste Management Program – \$2,300,000 to provide grants and low interest loans for recycling, solid waste disposal, and waste tire projects.

Appropriations from WEF Subfunds and Other Sources

- Section 11 of the bill appropriated \$1,000,000 from the Clean Water State Revolving Fund program subfund for the purpose of providing water quality grants;
- Section 12 of the bill appropriated \$150,000 from the Clean Water State Revolving Fund program subfund for the preparation of loan applications and administration of loans;
- Section 13 of the bill appropriated \$150,000 from the Drinking Water State Revolving Fund program subfund for the preparation of loan applications and administration of loans;
- Section 14 of the bill appropriated \$250,000 from the Drinking Water State Revolving Fund program subfund to provide grants for very small system compliance and public health improvements; and
- Section 15 of the bill appropriated \$200,000 from the Drinking Water State Revolving Fund program subfund for small system technical assistance grants.

Section 8 of the bill amended SDCL 46A-1-64 increasing from \$1.0 million to \$2.0 million the amount the Board of Water and Natural Resources may provide in Consolidated Program funding to any project without specific legislative authorization.

2016 State Water Plan

2016 State Water Plan

Overview

The 1972 State Legislature established the State Water Plan to ensure the optimum overall benefits of the state's water resources for the general health, welfare, safety, and economic well-being of the people of South Dakota through the conservation, development, management, and use of those resources. The Legislature placed the responsibility for this plan with the Board of Water and Natural Resources (the board).

The State Water Plan, as established in SDCL 46A-1-2, consists of two components – the State Water Facilities Plan and the State Water Resources Management System. To be considered for the State Water Facilities Plan, projects must meet criteria established by the board. These eligibility criteria are used as guidelines by the board and the Department of Environment and Natural Resources (the department) when considering a project for inclusion on the State Water Facilities Plan. Additions to or deletions from the State Water Resources Management System can only be made by the State Legislature.

State Water Facilities Plan

The State Water Facilities Plan (Facilities Plan) is a list of potential water projects. The Facilities Plan includes projects such as rural, municipal, and industrial water supply, wastewater collection and treatment facilities, storm sewers, groundwater protection, and watershed restoration. The board is responsible for approving the placement of projects on the Facilities Plan. The board can provide direct assistance to projects on the plan and placement on the plan may influence federal and other state agency funding decisions.

In November 2015, the board considered 28 applications requesting placement on the State Water Plan. The board placed 25 projects on the Facilities Plan, bringing the total number of projects on the 2016 State Water Facilities Plan to 180 (Table 11 and Table 12).

The projects in Table 11 have received either partial or full funding. Projects that have received funding from the board remain on the Facilities Plan until project completion and remain eligible to request additional funding.

The projects in Table 12 have not received funding as of December 31, 2015. Projects placed on the plan in November 2014 or that were amended onto the plan during calendar year 2015 remain on the Facilities Plan through December 2016. The 25 projects placed on the plan in November remain on the Facilities Plan through December 2017.

Additional projects may be placed on the Facilities Plan during the year. Projects placed on the Facilities Plan through the amendment process remain on the plan for the balance of the calendar year and the following year. Once a project is removed from the Facilities Plan, the project sponsor must submit a new state water plan application to be eligible to seek assistance.

Table 11 - 2016 State Water Facilities Plan Funded Projects

<u>Sponsor</u>	<u>Project Description</u>	<u>Amount Funded</u>	<u>Total Project</u>
Aberdeen	Raw Water Intake Replacement Project	\$1,040,000	\$1,040,000
Alpena	Wastewater Treatment Facility Upgrade and Expansion	\$905,474	\$1,465,000
Andover	Wastewater Treatment Facility Improvements	\$305,000	\$305,000
Astoria	Wastewater Treatment System Improvements	\$603,700	\$603,700
Bear Butte Valley Water, Inc	Regional Water System	\$1,765,000	\$7,000,000
Beresford	SD Highway 46 Water Improvements	\$745,000	\$745,000
Beresford	SD Highway 46 Wastewater Improvements	\$605,000	\$605,000
Big Sioux Community Water System	Connection to Minnehaha Community Water Corporation and the City of Madison	\$3,014,000	\$3,014,700
Big Sioux Community Water System	Water Meters	\$900,000	\$900,000
Bison	Wastewater Treatment and Sanitary Sewer Collection	\$419,000	\$419,000
Bonesteel	Water Infrastructure Upgrades	\$2,043,000	\$2,043,000
Bonesteel	Wastewater Treatment and Collection Improvements	\$588,000	\$588,000
Box Elder	Ghere Reservoir and Well Project	\$3,562,950	\$3,562,950
Brandon	Sanitary Sewer System Improvements	\$3,000,000	\$3,000,000
Brandon	Drinking Water System Improvements	\$12,425,000	\$12,425,000
Brentford	Wastewater Treatment and Collection Improvements	\$968,000	\$968,000

<u>Sponsor</u>	<u>Project Description</u>	<u>Amount Funded</u>	<u>Total Project</u>
Bristol	Water Improvements	\$1,979,000	\$1,979,000
Bristol	Wastewater & Storm Sewer Improvements	\$1,343,000	\$1,343,000
Britton	Wastewater Collection Improvements	\$4,000,000	\$4,000,000
Brookings	Wastewater Treatment System Improvements	\$30,600,000	\$30,600,000
Brookings	Division Avenue Stormwater Management	\$1,570,000	\$1,570,000
Brown County	Crow Creek Control Structure Replacement	\$120,000	\$300,000
Buffalo	Distribution System Improvements	\$1,695,000	\$1,695,000
Canistota	Water System Improvements	\$1,095,000	\$1,095,000
Canistota	Wastewater System Improvements	\$1,381,000	\$1,381,000
Canton	Well Replacement Project	\$1,550,000	\$1,550,000
Cavour	Wastewater Improvements	\$795,000	\$845,000
Chancellor	Sanitary Sewer Improvements	\$574,000	\$574,000
Clark	Total Retention Wastewater Treatment Facility Construction	\$6,485,000	\$7,000,000
Clear Lake	Sanitary Sewer Line Improvements	\$700,000	\$3,200,000
Colman	Phase 2 & 3 - Water Mains and Tower Replacement	\$1,600,000	\$1,600,000
Colman	Phase 2 - Sewer Line Replacement	\$1,800,000	\$1,800,000
Colonial Pine Hills Sanitary District	Microfiltration System Installation	\$1,105,000	\$400,000
Dakota Dunes Community Improvement District	Clear Well Expansion	\$1,600,000	\$1,600,000
Day Conservation District	Northeast Glacial Lakes Implementation	\$115,000	\$1,585,420
Dell Rapids	2013 Wastewater Improvements	\$1,200,000	\$1,200,000
Dimock	Wastewater Improvements	\$528,000	\$568,000

<u>Sponsor</u>	<u>Project Description</u>	<u>Amount Funded</u>	<u>Total Project</u>
Dupree	Wastewater Treatment and Lift Station Improvements	\$690,000	\$1,117,450
Eagle Butte	Water Distribution System Improvements	\$725,000	\$725,000
Eagle Butte	Willow Street Water System Improvements	\$250,000	\$490,000
Eagle Butte	Water Distribution System Improvements	\$1,244,000	\$1,244,000
Eagle Butte	Water Meter Replacement	\$593,000	\$593,000
Eagle Butte	Sanitary and Storm Sewer Improvements	\$2,410,000	\$2,410,000
Eagle Butte	Wastewater Treatment and Collection Improvements	\$433,500	\$541,875
Edgemont	Water System Upgrades	\$3,890,000	\$3,890,000
Ellsworth Development Authority	Regional Wastewater Treatment Facility	\$24,281,000	\$24,281,000
Emery	Citywide Watermain Replacement	\$2,200,000	\$2,221,587
Emery	Citywide Wastewater Collection Replacement	\$3,084,000	\$3,084,000
Ethan	Water Meter Project	\$178,000	\$178,000
Eureka	Highway 10 Sewer Replacement & Treatment Upgrades	\$1,494,000	\$1,494,000
Faulkton	Sanitary/Storm Separation and Access Road	\$902,000	\$902,000
Florence	Water System Improvements	\$2,255,000	\$2,355,000
Freeman	Wastewater Treatment Facility Improvements	\$1,000,000	\$1,536,000
Grant-Roberts Rural Water System	Milbank Service Area Improvements	\$4,500,000	\$4,500,000
Haakon County School District	Geothermal Wastewater Treatment System	\$517,600	\$647,000
Harrisburg	Colombia Basin Sanitary/Storm Sewer Project	\$3,219,100	\$3,219,100

<u>Sponsor</u>	<u>Project Description</u>	<u>Amount Funded</u>	<u>Total Project</u>
Harrisburg	Wastewater Regionalization Development Charge	\$3,177,000	\$3,677,000
Highmore	Highway 47 Wastewater Utility Relocation Project	\$679,000	\$679,000
Highmore	Highway 47 Water Utility Relocation Project	\$395,000	\$395,000
Hisega Meadows Water, Inc.	Acquisition of and Improvements to Water System	\$546,000	\$546,000
Hoven	Water Meters and Water Lines Project	\$750,000	\$750,000
Hoven	Highway 47 Water Utilities Replacement	\$353,000	\$353,000
Hoven	Highway 47 Wastewater Utilities Replacement	\$656,000	\$656,000
Howard	Wastewater Televising and Lagoon Expansion	\$979,000	\$1,764,000
Humboldt	Wastewater Collection and Treatment Improvements	\$2,086,000	\$2,086,000
Irene	Water Improvements	\$1,546,000	\$1,546,000
Irene	Wastewater Improvements	\$1,656,000	\$1,913,500
James River Water Development District	Lewis & Clark Implementation	\$244,740	\$1,833,333
Kennebec	Wastewater Collection and Treatment Improvements	\$1,160,000	\$1,160,000
Kingbrook Rural Water System	Water Service to Sinai	\$1,290,000	\$1,569,000
Lake Byron Watershed District	New Collection and Treatment System	\$2,343,000	\$3,694,000
Lake Madison Sanitary District	Lift Station and Forcemain Replacement	\$428,000	\$428,000
Lake Poinsett Sanitary District	Wastewater Collection and Treatment Expansion	\$3,729,000	\$3,729,000
Lead	Water Replacement	\$939,000	\$939,000
Lead	Sewer Separation and Replacement	\$937,000	\$937,000

<u>Sponsor</u>	<u>Project Description</u>	<u>Amount Funded</u>	<u>Total Project</u>
Lennox	4th Ave Water Main Replacement and Meter Upgrades	\$712,431	\$712,431
Lennox	2016 Storm and Sanitary Sewer Improvements	\$2,433,000	\$2,733,000
Lennox	2015 Storm and Sanitary Sewer Improvements	\$2,290,000	\$2,590,000
Lesterville	Water Meter Replacement	\$53,000	\$53,000
Letcher	Collection System Replacement and Lagoon Riprap	\$775,000	\$775,000
McLaughlin	Wastewater System Improvements Project	\$1,145,675	\$1,145,675
Mid-Dakota Rural Water System	Automatic Meter Reading Project	\$2,535,000	\$2,535,000
Miller	Wastewater Improvements	\$242,000	\$242,041
Minnehaha Community Water Corporation	Connection to Big Sioux Community Water System and the City of Madison	\$900,000	\$1,800,000
Mobridge	Water Tower Replacement Project	\$400,000	\$400,000
Mobridge	Wastewater Treatment Facility Improvements	\$1,475,000	\$1,475,000
Montrose	2015 Stormwater Improvements	\$545,000	\$545,000
Northville	Elm Street Storm Sewer Improvements	\$140,000	\$140,000
Oacoma	Relocation of Cedar Shores Wastewater Main	\$100,000	\$525,660
Onida	Water System Improvements	\$1,805,000	\$2,305,000
Parker	Water Distribution Improvements	\$241,000	\$1,303,900
Pierre	Regional Landfill - Cell #3 Construction	\$817,600	\$817,600
Pierre	Lincoln Avenue Storm Sewer Project	\$210,000	\$1,118,000
Powder House Pass Community Improvement District	Wastewater Treatment and Collection System Construction	\$2,575,218	\$2,575,218
Prairie Meadows Sanitary District	Wastewater Collection System Rehabilitation	\$1,388,000	\$1,388,000
Pukwana	Water Meter Project	\$227,000	\$227,000

<u>Sponsor</u>	<u>Project Description</u>	<u>Amount Funded</u>	<u>Total Project</u>
Rapid City	East Rapid City Water Expansion	\$5,626,000	\$7,126,000
Rapid City	Canyon Lake Sediment Removal	\$155,000	\$415,000
Redfield	Shar-Wynn Estates Sanitary and Storm Sewer Improvements	\$884,000	\$884,000
Saint Lawrence	Lagoon Repairs	\$373,000	\$373,000
Sinai	Total Retention Treatment Facility	\$1,500,000	\$1,500,000
Sioux Falls	East Side Sanitary Sewer System Improvements	\$20,108,000	\$21,608,000
Sioux Falls	Brandon Road Lift Station Parallel Forcemain	\$11,979,457	\$11,979,457
Sioux Falls	Outfall Sewer Replacement	\$26,060,000	\$26,060,000
Sioux Falls	Sioux River South Interceptor Phase 1	\$14,711,614	\$14,711,614
Sioux Falls	Sioux River South Interceptor Phase 2	\$12,464,000	\$12,464,000
Sioux Rural Water System	Water System Improvements and System Expansion	\$4,515,000	\$4,564,600
Stickney	Wastewater System Improvements	\$500,000	\$2,304,000
Summerset	Castlewood Drainage Improvements	\$79,000	\$79,000
Tabor	Distribution System Improvements	\$1,530,000	\$1,530,000
TC&G Water Association	Water System Improvements	\$1,600,000	\$2,100,000
Tri-County Water Association	Elevated Water Storage Tank	\$200,000	\$200,000
Tripp County Water User District	Internal Improvements and Expansion	\$11,750,000	\$11,750,000
Turton	Wastewater Improvements	\$596,000	\$596,000
Twin Brooks	Connection to Grant Roberts Rural Water System	\$262,900	\$260,900
Tyndall	Water Distribution and Storage Upgrades	\$1,570,000	\$1,570,000
Waubay	Wastewater Treatment Facility Improvements	\$1,780,000	\$2,195,820
Wessington Springs	Wastewater Infrastructure Improvements	\$443,000	\$443,000

<u>Sponsor</u>	<u>Project Description</u>	<u>Amount Funded</u>	<u>Total Project</u>
Wessington Springs	Water Infrastructure Improvements	\$259,000	\$259,600
Westport	Water Meter Project	\$100,000	\$100,000
Woodland Hills Sanitary District	Water System Improvements	\$481,000	\$481,000
Yale	Wastewater Treatment Facility Expansion	\$1,499,300	\$1,499,300
Yankton	East Highway 50 Lift Station	\$3,330,000	\$3,330,000
Yankton	New Collector Well	\$12,850,000	\$12,850,000
Total		\$330,700,259	\$357,294,431

Table 12 - 2016 State Water Facilities Plan Unfunded Projects

<u>Sponsor</u>	<u>Project Description</u>	<u>On Plan Through</u>	<u>Projected State Funding</u>	<u>Total Project</u>
Avon	Water Meter Replacement	2016	\$469,860	\$469,860
Belle Fourche	8th Avenue Utility Improvements	2017	\$2,300,000	\$4,000,000
Brandon	Lift Station to Sioux Falls	2017	\$2,260,875	\$2,260,875
Bridgewater	Main Street Water Distribution Improvements	2016	\$218,900	\$218,900
Britton	Drinking Water System Improvements	2017	\$4,896,000	\$4,896,000
Brookings-Deuel Rural Water System	Automatic Meter System	2016	\$675,000	\$675,000
Canton	Dakota Street - Phase 1 Upgrades	2017	\$2,263,000	\$2,713,000
Chancellor	Water Meter Replacement	2017	\$177,415	\$177,415
Charles Mix County Lake Restoration Organization	South Lake Improvements	2016	\$2,321,000	\$2,321,000
Conde	Water System Improvements	2016	\$3,442,785	\$3,442,785
Dell Rapids	2016 Utilities Improvements	2016	\$4,195,000	\$4,195,000

<u>Sponsor</u>	<u>Project Description</u>	<u>On Plan Through</u>	<u>Projected State Funding</u>	<u>Total Project</u>
Dell Rapids	Wastewater Treatment Improvements	2017	\$5,758,000	\$5,758,000
Delmont	Refinancing of DWSRF-01 Loan	2017	\$139,000	\$139,000
Elk Point	Lagoon Cell Number 3 Rehabilitation	2016	\$500,000	\$500,000
Elk Point	Rose Street Sanitary Sewer Reconstruction	2016	\$1,542,000	\$1,750,000
Elk Point	Rose Street Water Distribution Improvements	2016	\$1,542,000	\$1,750,000
Faulkton	Wastewater System Improvements	2016	\$3,670,000	\$7,841,000
Florence	Wastewater System Improvements	2016	\$1,818,750	\$2,318,750
Hartford	2014 Water Main Extension	2016	\$711,200	\$711,200
Hecla	Water Distribution System Improvements	2016	\$544,000	\$544,000
Hermosa	New Well/Water Source	2016	\$1,471,875	\$1,471,875
Hot Springs	North 24th Street Sewer	2016	\$270,000	\$270,000
Hot Springs	Water System Supply and Storage	2017	\$3,850,000	\$3,850,000
Hot Springs	Houston Avenue Wastewater Collection Replacement	2017	\$197,000	\$197,000
Humboldt	Water Meter Replacement	2016	\$240,000	\$240,000
Kingbrook Rural Water System	2017 Water System Improvements	2017	\$13,143,000	\$13,630,500
Lake Norden	Wastewater Collection System Improvements	2016	\$510,000	\$510,000
Lake Poinsett Sanitary District	Wastewater Collection and Treatment System Expansion	2017	\$10,000,000	\$10,000,000
Lead	Water Meter Replacement	2016	\$560,000	\$560,000
Lead-Deadwood Sanitary District	Peake Ditch Pipeline Rehabilitation	2016	\$1,061,000	\$1,061,000
Lemmon	Sanitary Sewer Improvements	2016	\$9,515,948	\$9,515,948

<u>Sponsor</u>	<u>Project Description</u>	<u>On Plan Through</u>	<u>Projected State Funding</u>	<u>Total Project</u>
Midland	Water System Improvements	2017	\$715,000	\$715,000
Miller	Storm Sewer Upgrades	2016	\$1,000,000	\$12,058,000
Miller	Wastewater Collection and Treatment System Improvements	2017	\$5,111,369	\$5,111,369
Miller	Water System Improvements	2017	\$6,318,460	\$6,318,460
Mina Lake Sanitary District	Wastewater Improvements	2016	\$500,000	\$2,624,000
Perkins County Rural Water System	Booster Pump Station Improvements	2016	\$46,000	\$46,000
Perkins County Rural Water System	Highways 12 and 73 Watermain Realignment	2016	\$1,516,700	\$1,516,700
Philip	Water Meter Replacement	2016	\$340,000	\$340,000
Pickstown	Wastewater Treatment System Improvements	2016	\$405,000	\$405,000
Piedmont	Central Wastewater System	2017	\$4,500,000	\$4,500,000
Piedmont	Water Tower and Well	2017	\$2,200,000	\$2,200,000
Pierre	2015 Wastewater Treatment Upgrade	2016	\$1,722,100	\$1,722,100
Plankinton	Water Meter Replacement	2017	\$240,000	\$240,000
Platte	Wastewater Treatment Improvements	2016	\$2,500,000	\$2,537,700
Platte	Wastewater Collection Improvements	2017	\$1,075,000	\$1,130,000
South Shore	Water System Improvements	2016	\$500,000	\$2,400,000
Tea	Ceylon Avenue Water and Sewer Extension	2017	\$1,550,000	\$1,550,000
Tea	Brian Street Water and Sewer Extension	2017	\$1,691,000	\$1,691,000
Viborg	Water Distribution System Replacement	2017	\$579,936	\$903,253
Volga	Lift Station Construction	2016	\$619,200	\$619,200
Wakonda	Water System Improvements	2017	\$2,655,910	\$2,655,910

<u>Sponsor</u>	<u>Project Description</u>	<u>On Plan Through</u>	<u>Projected State Funding</u>	<u>Total Project</u>
Watertown	Sanitary Sewer Extension	2016	\$832,896	\$832,896
Wessington Springs	Water Meter Replacement	2017	\$568,000	\$568,000
Westport	Wastewater and Storm Sewer Improvements	2017	\$723,030	\$723,030
Yale	Wastewater Treatment Pond Rip-Rap	2017	\$443,000	\$443,000
		Total	\$118,616,209	\$141,838,726

State Water Resources Management System

The State Water Resources Management System (SWRMS) identifies large, costly water projects that require specific state or federal authorization and financing. These projects are placed on the list when recommended by the board and approved by the Governor and the Legislature. The SWRMS list (Table 13) serves as the preferred priority list to optimize water resources management in the state. Once a project is placed on the SWRMS list, it remains on the list until removed by legislative action.

In 2014, tribal and non-tribal sponsors of the Mni Wiconi Rural Water System fully obligated their final allocations of federal funding to construction contracts, and the Perkins County Rural Water System utilized a Drinking Water State Revolving Fund award to construct the final component of its federally authorized project. In June 2014, the board passed resolutions certifying completion of the West River/Lyman Jones component of Mni Wiconi Rural Water System and the Perkins County Rural Water System. The completion certification initiated the repayment of \$17.644 million in SWRMS loans by these systems. As part of the 2015 Omnibus Bill (Senate Bill 173), the board recommended removal of these two projects from the State Water Resources Management System list. The bill was signed on March 12, 2015 and the West River/Lyman Jones and Perkins County projects were removed from the SWRMS preferred priority list.

The current SWRMS list is shown on Table 13:

Table 13 – State Water Resources Management System Projects

<u>Project</u>	<u>Description</u>
Belle Fourche Irrigation	Upgrade Project

<u>Project</u>	<u>Description</u>
Big Sioux Flood Control Study	Watertown Flood Control
CENDAK Irrigation Project	Irrigation Project - Central SD
Gregory County Pumped Storage Site	Multi-Purpose Water Utilization
Hydrology and Water Management Studies	Statewide Water Resources
Lake Andes-Wagner/Marty II Irrigation Unit	Irrigation - Charles Mix County
Lewis & Clark Rural Water System	Bulk Water System - Southeastern SD
Sioux Falls Flood Control Project	Increased Flood Protection
Southern Black Hills Water System	Rural Water System - Southern Hills
Vermillion Basin Flood Control Project	Flood Control on Vermillion River

SWRMS Project Status

A brief summary of each project and its status is presented on the following pages. The year in the title indicates when the project was placed on the State Water Resources Management System (SWRMS).

Belle Fourche Irrigation Upgrade Project - 2012

- The 2012 Omnibus Bill added the Belle Fourche Irrigation Upgrade project to the SWRMS list. The project is for the construction of a \$5,000,000 Belle Fourche Irrigation Upgrade Project to include replacement of the Indian Creek siphon, the Horse Creek siphon, the north canal control house, and the south canal control house, repair of the Belle Fourche River siphon, and removal of sediment from the south canal intake for the purpose of stabilizing crop and forage production in central western South Dakota to offset the effects of drought conditions which naturally devastate South Dakota's economic viability.
- South Dakota Codified Law 46A-1-13.12 authorized a state cost share commitment of up to \$2,500,000 of grant and \$2,500,000 of loan assistance, to provide funding for the Belle Fourche Irrigation District Upgrade Project.
- The appropriations for 2012 included a \$1,250,000 grant and a \$1,250,000 loan for engineering design, preconstruction, and construction of the facilities associated with the Belle Fourche irrigation upgrade project.
- During calendar years 2012 and 2013, engineering design of siphons and the canal gatehouse was ongoing.
- The appropriations for 2013 included a \$750,000 grant and a \$750,000 loan for engineering design, preconstruction, and construction of the facilities associated with Belle Fourche irrigation upgrade project.

- The appropriations for 2014 included a \$500,000 grant and a \$500,000 loan for engineering design, preconstruction, and construction of the facilities associated with the Belle Fourche irrigation upgrade project. This completed the state cost share commitment to the upgrade project.
- Bids were opened and awarded for the Indian Creek and Horse Creek siphons in 2013, and construction started in October of 2013. The Indian Creek siphon was completed in 2014 and was operational for the 2014 irrigation season. The Horse Creek siphon was completed in 2015 and was operational for the 2015 irrigation season.
- In May 2014, bids were opened for dredging of the reservoir intake structure. Dredging operations are approximately 10 percent complete with work set to continue in the fall of 2015. Valve removal for the intake is scheduled to be completed the spring of 2016.
- In 2015, bids were opened for the canal gatehouse upgrade; work was started in the fall of 2015 with completion the spring of 2016.

Big Sioux Flood Control Study (Watertown & Vicinity) – 1989

- The Corps of Engineers completed a reconnaissance report titled “Flood Control for Watertown and Vicinity.” The study concluded the best alternative for flood protection for Watertown, Lake Kampeska, and Pelican Lake was a \$16 million dry dam on the Big Sioux River at the Mahoney Creek site.
- The Corps of Engineers, in cooperation with Watertown, East Dakota Water Development District, Codington County, Lake Kampeska Water Project District, and the Department of Environment and Natural Resources, initiated a feasibility study in 1988. State appropriations of \$150,000 were provided to help meet the non-federal cost share.
- The final draft feasibility report was distributed in June 1994 for public review and comment. A public hearing in July 1994 in Watertown presented findings of the report and gathered comments. City and county elections were held, and residents voted against further local participation in the project.
- The project regained momentum after severe spring flooding in 1997 forced 5,000 residents from their homes. The Watertown City Council scheduled an election in February 1998, calling for a citywide vote on the proposed Mahoney Creek Dam. The record turnout of voters again rejected the proposed dam.
- In June 2001, the residents of Watertown called for a citywide vote on the proposed Mahoney Creek Dam project. The voters approved the project. City officials proceeded with updating the original Corps of Engineers feasibility study and obtaining support and financing for the project.
- After the affirmative vote, Watertown began negotiations with the Corps of Engineers to complete a General Re-evaluation Report of the city’s flood control alternatives. Negotiations continued in 2003, and the scope of work to be reviewed by the report continued to be evaluated. The cost of the re-evaluation report was estimated at \$2.8 million.

- In 2003, Watertown returned \$450,000 of state funds appropriated in 2003 for local participation during the General Re-evaluation process. Because of cost share and scope of work issues, Watertown decided to step back from participation in the re-evaluation and turned over all work to the Corps of Engineers.
- The Corps of Engineers received \$246,000 in 2003, \$473,000 in 2004, \$176,000 in 2005, and \$344,000 in 2008 to continue with the General Re-evaluation Report. Alternatives to be considered included the Mahoney Creek Dry Dam, three to five medium sized dams, 800 small dams, and a diversion between Lake Kampeska and Lake Pelican.
- A stakeholder's group consisting of representatives from the Lake Pelican and Kampeska water project districts, the Corps of Engineers, the city of Watertown, Codington County Commissioners, and landowners was created in 2010. The group held several public meetings to discuss and develop a flood control plan.
- U.S. Army Corps of Engineers have indicated that the most cost-effective solution is the Mahoney Creek Dry Dam. The city of Watertown voted to support the Mahoney Creek Dry Dam for flood protection. The cost-benefit study of the dam is anticipated to take two years, and the total project cost is estimated at \$40 million dollars.
- In 2015, the city of Watertown indicated its intent to partner with the Corps of Engineers to conduct a feasibility level study update to investigate flood risk management solutions for Watertown.

CENDAK Irrigation Project – 1982

- This proposed irrigation project would supply Missouri River water to 474,000 acres in Hughes, Hyde, Hand, Spink, Beadle, and Faulk counties in central South Dakota. South Dakota will pursue development of the project when federal policies are more supportive of large-scale irrigation projects. No activity occurred on the project in 2015.

Gregory County Pumped Storage Project – 1981

- Hydroelectric Component – The Gregory County Pumped Storage Project is a peak generation hydroelectric facility in northern Gregory County. In 1988, the Federal Energy Regulatory Commission (FERC) issued a preliminary permit for development of the project. The state's preliminary permit expired August 1991.
- Water Supply Component – The project has the potential to provide water for irrigation and municipal, rural, and industrial purposes using the hydroelectric project's upper bay as a water supply source. The Bureau of Reclamation completed a *Special Report on the Gregory Unit of the Pick-Sloan Missouri Basin Program, South Dakota* in 1992.
- The Water Resources Development Act of 1986 (Public Law 99-662) authorized the construction of a \$1.3 billion hydroelectric pumped storage facility by the Corps of Engineers. The Act also authorized up to \$100 million for construction of the associated Gregory Unit of the Pick-Sloan Missouri Basin Program.
- On June 20, 2001, Dakota Pumped Storage, LLC, a Minnesota corporation, filed a FERC Preliminary Permit application for a pumped storage hydroelectric facility in Gregory

County. On September 25, 2001, South Dakota filed a Motion to Intervene and a Notice of Intent to File Competing Application for Preliminary Permit by the State of South Dakota. An Application for Preliminary Permit for the Gregory County Pumped Storage Hydroelectric Facility in Gregory County, South Dakota was filed with FERC by the South Dakota Conservancy District on October 12, 2001.

- The FERC issued a 3-year Preliminary Permit to the South Dakota Conservancy District on August 12, 2002. FERC denied the application by Dakota Pumped Storage, LLC.
- The 2002 Omnibus Bill appropriated \$100,000 to the South Dakota Department of Environment and Natural Resources to complete preliminary permit and full permit applications to FERC. The department solicited Requests for Proposals from firms interested in providing the research to support the FERC permit. Four proposals were received. Black & Veatch was selected.
- The 2004 Black & Veatch study determined it did not appear to be cost-effective to pursue the pumped storage project at this time. These findings were presented to the Board of Water and Natural Resources in June 2004. The FERC permit expired in 2005.
- In 2010, South Dakota Energy, L.L.C. submitted a preliminary permit application to FERC to study the feasibility of the South Dakota Energy Hydroelectric Project located on the Missouri River in Gregory County, South Dakota. On July 21, 2010, FERC issued an Order Issuing Preliminary Permit and Granting Priority to File License Application for the project.
- In 2013, both Missouri River Energy Services and the Western Minnesota Municipal Power Agency submitted preliminary permit applications to FERC to study the feasibility of the Gregory County Pump Storage Project.
- On December 19, 2013, FERC issued an order issuing a Preliminary Permit and Granting Priority to File License Application for the project to Western Minnesota Municipal Power Agency. No activity occurred on the project in 2015.

Hydrology and Water Management Studies – (2015 - Present)

Black Hills Hydrology and Water Management Study – (1982 – 2015)

- The hydrology study compiled water resource data to assess the quantity, quality, and distribution of surface and groundwater resources in the Black Hills area. These resources have been stressed by increasing population, periodic drought, and developments related to expansion of mineral, timber, agricultural, recreational, municipal and urban needs. The U.S. Geological Survey provided \$3.4 million from federal fiscal years 1988 through 2001 to establish the hydrologic monitoring system, collect the data, and complete data analysis.
- The hydrology study entered Phase II in federal fiscal year 1997 and was completed in 2002. The study emphasis during Phase I was data collection. The emphasis shifted to analytical activities and publication of maps and reports during Phase II.
- The hydrology study produced 31 technical reports including a lay reader summary, a comprehensive report on the hydrology of the Black Hills area, and a comprehensive lay reader atlas of water resources in the Black Hills area.

- The water management study provided interested parties with the tools needed to assist in making informed management decisions about development of water resources. Data gathered during the hydrology study was used in the water management study. Congress appropriated funds in federal fiscal year 1991 to initiate the Federal Black Hills Water Management Study by the Bureau of Reclamation.
- The Black Hills Water Management Study was completed in federal fiscal year 2003. The study focused on needs assessment, management alternatives, and a final report.
- The 2004 Omnibus Bill appropriated \$100,000 for the development, evaluation, and review of studies related to development of regional water supply systems in or near the Black Hills. The Fall River Water User District sponsored a regional water supply study for an area that included all of Custer and portions of Fall River and southern Pennington counties.
- The 2005 Omnibus Bill appropriated \$100,000 for the development, evaluation, and review of studies related to development of regional water supply systems in or near the Black Hills. The Southern Black Hills Water System, Inc., a nonprofit corporation, was formed to continue the feasibility study of a regional water system in Custer, Fall River, and southern Pennington counties. The Southern Black Hills Water System requested additional funds to continue activities begun by the Fall River Water User District. In June 2005, the board awarded \$50,000 for these activities.
- The 2006 Omnibus Bill amended the State Water Resources Management System to add the Southern Black Hills Water System to its list of preferred, priority objectives for South Dakota. The bill also provided an initial appropriation of \$125,000 to allow the Southern Black Hills Water System to continue activities begun by the Fall River Water User District.
- In December 2006, the Lead-Deadwood Sanitary District submitted a request to have the remaining \$50,000 of SFY 2006 Black Hills Water Management Study funding placed under agreement with the district to conduct a regional water study in the Lead, Deadwood, and Central City area. The funding was awarded in January 2007, and the sanitary district selected an engineer in June 2007. The Lead-Deadwood Area Water Study Final Report was issued on July 18, 2008. The study provided an analysis of the Lead-Deadwood Sanitary District intake and water treatment plant, a review of the Lead and Deadwood distribution systems, an analysis of the development in the surrounding area, and analyzed the ability of the Lead-Deadwood Sanitary District to serve them.
- The 2009 Omnibus Bill appropriated \$65,000 for hydrology studies. These funds were awarded to West Dakota Water Development District to cost share the United States Geological Survey groundwater aquifer study in the Black Hills.
- Several microgravity surveys were completed during 2010 and 2011 at three study sites in the Black Hills. Collected data was analyzed spatially to help characterize the heterogeneity of the Madison and Minnelusa aquifers and possibly the transition zone between the two aquifers. Time-series data was analyzed at each of the three study sites and correlated with water levels in Madison aquifer wells. This analysis helps characterize vertical heterogeneity and effective porosity at selected sites.

- A report entitled “Microgravity Methods for Characterization of Groundwater-Storage Changes and Aquifer Properties in the Karstic Madison Aquifer in the Black Hills of South Dakota” was completed in 2012.
- The 2015 Omnibus Bill appropriated \$250,000 for statewide hydrology and water management studies. In June 2015, the Department of Environment and Natural Resources was awarded a \$47,000 grant to conduct aquifer isotope analysis in eastern South Dakota. The department’s Geological Survey program will be conducting this work.

Lake Andes-Wagner/Marty II Irrigation Unit – 1975

- The 45,000-acre Lake Andes-Wagner Irrigation project and 3,000-acre Marty II Irrigation project are federally authorized Pick-Sloan Missouri Basin Units in Charles Mix County (Public Law 102-575). Estimated construction costs are \$175 million and \$24 million, respectively.
- In 1990, a plan of study was developed for a 5,000-acre research demonstration program to determine best management practices for irrigating glacial till soils containing selenium.
- The 1992 State Legislature authorized the construction of the Lake Andes-Wagner/Marty II project and provided a state loan cost share commitment of \$7 million. Both the state and federal project authorizations are contingent upon the successful completion of the 5,000-acre research demonstration program.
- In 1995, Congress approved \$250,000 for the research program. State and federal agencies revised the 1990 plan of study to re-scope the demonstration program and identify the specific issues and research components that are of national significance. A nine-year, \$11.3 million effort was projected.
- In 1999, the Bureau of Reclamation (BoR) received \$150,000 to prepare an environmental assessment for the demonstration program.
- The BoR completed the environmental assessment and issued a Finding of No Significant Impact for the demonstration program in 2000. Significant federal funding must be secured before the demonstration program can proceed.
- The Board of Water and Natural Resources placed \$15,000 in 2002 and \$50,000 in 2003 under agreement. The Lake Andes-Wagner Irrigation district continued to seek federal funding for the demonstration program.
- The 2009 Omnibus Bill appropriated \$35,000 for the Lake Andes-Wagner/Marty II research demonstration program. These funds were awarded to the project sponsor to continue its efforts to get this project moving forward.
- During 2010, the sponsor worked to assemble information and research data from multiple resources. Discussions with BoR continued regarding the possibility of funding and placing the project into the BoR’s program proposal.
- The 2011 Omnibus Bill appropriated \$55,500 for the Lake Andes-Wagner/Marty II research demonstration program. However, these funds will not be awarded unless the federal

government makes the decision to begin funding the project at levels that will ensure project completion in a reasonable timeframe.

- In June 2012, a portion of South Central Water Development District's future use permit reserving water from the Missouri River was transferred to the Lake Andes-Wagner Irrigation District. The Irrigation District's transfer was for the reservation of 96,000 acre-feet of water annually from the Missouri River for future development including irrigation, municipal, stock watering, fire protection, industrial and public recreation use. The seven-year review of this permit as required by statute was conducted in October 2013 before the Water Management Board, and the permit was allowed to remain in effect for 96,000 acre-feet annually, subject to the required fee being submitted. No activity occurred on the project in 2015.

Lewis & Clark Regional Water System – 1989

- The Lewis & Clark Regional Water System is a bulk delivery system providing treated Missouri River water to communities and existing rural water systems in southeastern South Dakota, northwestern Iowa, and southwestern Minnesota. South Dakota membership includes eight communities and three rural water systems. Approximately 155,000 South Dakotans will receive water from Lewis and Clark.
- President Clinton signed Public Law 106-246 on July 13, 2000, authorizing the federal construction of the Lewis & Clark Regional Water System. The federal legislation also approved a federal appropriation of \$600,000 to continue project engineering and begin construction. The Board of Water and Natural Resources placed \$200,000 of state funding under agreement in 2000 to assist with these same project activities.
- Iowa and Minnesota sponsors provided funding support for project development in proportion to their service capacity needs. The Iowa and Minnesota State Legislatures authorized the project for construction and completed their cost share commitments.
- The South Dakota Legislature authorized Lewis and Clark's South Dakota project features (\$200 million) in 1993. In 2002, the state cost share commitment of \$18,585,540 in 1993 dollars was established for the Lewis & Clark Regional Water System.
- The 2002 Omnibus Bill appropriated \$750,000 for the project. These funds, combined with federal and other local sources, completed the federal environmental review, the final engineering report and initiated construction. Lewis & Clark Regional Water System's final engineering report completed its initial required 90-day congressional review on September 8, 2002. The federal Office of Management and Budget (OMB) determined that Lewis & Clark could not submit its final engineering report to Congress until OMB had approved it. Lewis & Clark worked with OMB to get its final engineering report approved and resubmitted to Congress. Lewis & Clark held its groundbreaking on August 21, 2003.
- In 2005, Lewis & Clark agreed to provide Sioux Falls an additional 17 million gallons of water per day, bringing the total delivered capacity to 45 million gallons per day. Sioux Falls financed the cost of the additional capacity.

- In May 2007, Lewis & Clark elected to change the project's name from "Rural" to "Regional". The project will be doing business as the Lewis & Clark Regional Water System.
- Through June 30, 2008, the South Dakota Legislature had appropriated and the Board of Water and Natural Resources had placed under agreement \$19,275,000 toward South Dakota's cost share commitment.
- In May 2008, Lewis & Clark began operating its first segment of pipeline – a nine-mile emergency connection between Sioux Center and Hull, Iowa. Until Lewis & Clark water arrives, Lewis & Clark is purchasing water from Sioux Center and reselling it to Hull.
- In July 2008, a \$20.8 million contract was awarded for the first phase of the water treatment plant, which included a three million gallon underground reservoir, high capacity pumps, electrical building and two standby generators. This infrastructure is separate from the main treatment plant building.
- In July 2008, work was completed on a \$5.5 million contract that included one mile of river bank stabilization southwest of Vermillion to protect Lewis & Clark's main well field from erosion, as well as two well houses, four valve vaults and various piping. Utilizing a permanent easement, Lewis & Clark's main well field is located on land owned by the SD Department of Game, Fish & Parks (Frost Game Production Area).
- In September 2008, Lewis & Clark began operating its second segment of pipeline – a 12 mile emergency connection for Tea and Harrisburg. Until Lewis & Clark water arrived, Lewis & Clark purchased water from Sioux Falls and re-sold it to Tea and Harrisburg.
- The 2009 Omnibus Bill appropriated \$6.3 million for the engineering design, preconstruction activities, and construction.
- In April 2009, Lewis & Clark was approved to receive \$56.5 million from the Bureau of Reclamation as part of the American Recovery and Reinvestment Act.
- In May 2009, a \$64.1 million contract was awarded for Phase II of the water treatment plant. In July 2009, Phase II construction of the water treatment plant commenced.
- In July 2009, a \$5.04 million contract was awarded for the construction of the 85th Street Tower, which has a three-million gallon storage capacity, located in Sioux Falls.
- In August 2009, a \$9.5 million dollar contract was awarded for the construction of two above ground reservoirs to be built near Tea. These two reservoirs along with the 85th Street tower serve as Lewis & Clark's primary storage facilities.
- In September 2009, a \$3.7 million contract was awarded for the first segment of the "Minnesota Transmission Line." This segment is a five-mile pipeline constructed in South Dakota and serves Minnehaha Community Water Corporation, all Minnesota users, and Rock Rapids, Iowa.
- In September 2009, a \$2.8 million contract was awarded for construction of the Parker and Centerville service lines. These service lines included almost fourteen miles for the Parker service line and five miles for the Centerville service line.

- Lewis & Clark received \$10 million in federal funding in 2009 under the 2010 Energy and Water Appropriation bill.
- In November 2009, the last section of the Treated Water Pipeline, which is the main trunk between the water treatment plant and the city of Sioux Falls, was completed.
- In June 2010, the \$6.3M approved by the 2010 Legislature was put under agreement. This completed the State's cost share commitment to the project.
- A contract for five new wells was awarded in April 2010 for \$6.8 million. The five new wells will provide Lewis & Clark with an estimated 10 million gallons a day of additional capacity. Including the six previously drilled wells, Lewis & Clark's total well capacity will be 28 million gallons per day.
- A \$4.2 million bid was awarded in May 2010 for the Treated Water Pipeline - segment 11. This five mile segment connected Beresford to the main truck line. This is the first segment of the "Iowa Transmission Line." Eventually this line will connect to Sioux Center, Hull and Sheldon.
- In October 2010, Lewis & Clark was awarded approximately \$3.5 million in reprogrammed American Recovery & Reinvestment Act funding through the Bureau of Reclamation.
- In October 2010, a \$7.55 million contract was awarded for the Minnesota – segment 1, which runs along the South Dakota - Iowa border from just west of the Big Sioux River to a point six miles west of Rock Rapids.
- Lewis & Clark received \$1,996,000 in federal funding, through the Bureau of Reclamation in FFY 2011. Lewis & Clark was also allocated an additional \$306,000 in funding for FFY 2011 in reprogrammed funds.
- In May 2011, Lewis & Clark awarded a \$1.6 million dollar contract for the Pipeline Commissioning. This contract provided for testing, disinfecting, and cleaning 85 miles of pipes from the water treatment plant near Vermillion to Sioux Falls.
- Lewis & Clark received \$5.5 million in federal funds for FY 2012. Lewis & Clark initiated operation of its water treatment plant and began to serve water to eleven of its twenty members in July 2012.
- The 20 members and three states have prepaid 100 percent of the non-federal cost share. Because the prepayments made by the 20 members and three States, which totals just under \$154 million, have been fully utilized, the schedule to connect the remaining nine members is entirely dependent upon future federal funding.
- In 2014, Lewis & Clark was provided \$22 million in advance federal funding from Minnesota. These funds will be used to construct transmission lines to Luverne and Magnolia.
- In 2014, Lewis & Clark received a \$1 million reimbursable grant for advance federal funding from South Dakota. These funds were made available by the joint appropriations committee in Senate Bill 53. These funds will be used to acquire easements and pay for engineering costs for two of the five segments of the Madison service line.

- In 2014, Lewis & Clark delivered water to 11 of the 20 members. The system provided an average of 9 million gallons per day to the connected members and a peak day production of 19.6 million gallons. Water demand increased by 20 percent from 2013 production numbers.
- In 2015, Lewis & Clark was provided \$19 million in advance federal funding from Minnesota. These funds will be used to connect the Lincoln Pipestone Rural Water System, construct a 4 million-gallon storage reservoir southwest of Luverne, install a booster station southeast of Luverne, acquire easements, and complete design for the pipeline between Adrian and Worthington.
- In 2015, Lewis & Clark received a \$7.7 million loan for advance federal funding from South Dakota. These funds were made available by Senate Bill 173. These funds will be used to construct segments one and five of the Madison service line. Madison is the only South Dakota member system not yet connected; however, construction of segments 1 and 5 does not get a drop of water to Madison. Construction of segments 2 through 4 is estimated to cost more than \$22 million.
- DENR worked with three regional water systems and the city of Madison to develop a wheeling option as an alternative to providing federal fund advances to construct the balance of the Madison service line. The wheeling option builds on the construction of segments 1 and 5. Segment 1 provides Minnehaha Community Water Corporation with its second Lewis & Clark connection a mile west of Crooks. That connection increases the delivery of Lewis & Clark water to Minnehaha to 1.1 million gallons per day (mgd) and with \$1.8 million in wheeling upgrades, and frees up water from Minnehaha's water treatment plants to feed its Tower 3B near Colton. Tower 3B will then feed water into a new 12-inch Big Sioux Community Water line going north and west to connect with Lewis & Clark's segment 5 to deliver 1 mgd of water to Madison costing \$3 million to construct. The wheeling option saves the state more than \$17 million in federal fund advances and gets Madison its needed 1 mgd of water from a regional system supplier as early as November 2016.
- In 2015, Lewis & Clark delivered water to 12 of the 20 members. The system provided an average of 12.7 million gallons per day to the connected members and a peak day production of 21 million gallons. Water demand has increased by 44 percent from 2014 production numbers.
- Through FY14, the federal government appropriated \$220 million to the project. Recent federal funding levels include \$9 million in FY15 and \$2.774 million proposed for FY16.

Mni Wiconi Rural Water System – 1989

- Public Law 100-516, as amended in 1994, authorized a \$263 million federal project to provide high quality Missouri River water to 50,000 western South Dakota citizens in a 10-county area extending south and west of Ft. Pierre through the Pine Ridge Indian Reservation.

- The Oglala Water Supply System component encompasses the distribution facilities on the Pine Ridge Indian Reservation and the off-reservation core system facilities including the Missouri River intake and water treatment plant. The Rosebud and Lower Brule components include the delivery and distribution facilities associated with service to their respective reservations. About \$200 million of the project costs are allocated to the tribal systems as non-reimbursable federal costs. Operation and maintenance for the tribal systems are a federal trust responsibility.
- West River/Lyman-Jones Rural Water System, Inc. (WR/LJ) is the non-Indian distribution component. The cost share for construction is 80 percent federal and 20 percent non-federal. WR/LJ is responsible for its operation and maintenance costs.
- The 1992 State Legislature authorized the construction of the Mni Wiconi project. In 1995, the state authorization was amended to reflect the \$263 million project and a state cost share commitment of \$12.9 million.
- WR/LJ initiated construction of advanced features in 1993. These features were distribution systems that had access to interim groundwater supplies. In June 1993, the Oglala Sioux Water Supply System also initiated construction of advanced features in the White Clay and Wakpamni districts of the Pine Ridge Reservation.
- In July 1996, the Oglala Sioux Water Supply System, along with WR/LJ, Rosebud, and Lower Brule rural water systems, held Mni Wiconi core facilities groundbreaking ceremonies at Echo Point near Ft. Pierre.
- In 1997, the Oglala Sioux Water Supply System awarded a \$16.4 million contract for the construction of the water treatment plant near Ft. Pierre. Construction activities began in 1997 and were completed in 2002.
- In 2001, the state appropriated a \$1.7 million loan for continued construction of the Mni Wiconi Rural Water System. This appropriation completed the state's cost share commitment to the project.
- WR/LJ secured an \$8.0 million Drinking Water State Revolving Fund Program loan in 2006 to advance construction of the North Core Pipeline. Construction on the first phase was completed in 2007 conveying water from the water treatment plant near Ft. Pierre to Hayes. This first phase of the North Core Pipeline hooked up over 100 rural residences along the way.
- In the fall of 2008, WR/LJ bid its last major distribution area to serve the Powell project area. Construction of the Powell project area was completed in 2009.
- In August 2008, the Oglala Sioux Water Supply System celebrated the delivery of Missouri River water to the Pine Ridge Indian Reservation with its 24-inch South Core Pipeline providing service to users in the Wanblee area.
- In 2008, the Rosebud Sioux Water Supply System installed a second 12-inch pipeline from White River to Highway 18. Completion of this project provided the Rosebud system with its full design capacity of Missouri River water delivery to Todd County.

- The federally authorized Lower Brule Sioux Water Supply System component of the Mni Wiconi system was completed in 2008.
- In October 2009, the federal fiscal year 2010 Energy and Water Appropriation bill was signed. The bill appropriated \$22 million for the continued construction of the Mni Wiconi project.
- The Bureau of Reclamation, as part of the American Recovery and Reinvestment Act in 2009, approved \$10 million for the rehabilitation of Indian education water systems on Pine Ridge Indian Reservation. The Mni Wiconi system was also allocated \$10.2 million for operation and maintenance, including the operation of the treatment plant located in Ft. Pierre.
- WR/LJ worked out an agreement with the city of Ft. Pierre to sell the city water for a period of three years. WR/LJ already had a connection to the city, but it was sized for only temporary and emergency purposes. WR/LJ upsized the connection and installed a large automatic control valve. On February 8, 2010, rural water was turned on to the city of Ft. Pierre.
- Bids for the Cedar Community Project were opened in July. The Cedar Project is located between the communities of Quinn, Cottonwood, and Cactus Flat, and borders the north side of the Badlands National Park. It consists of approximately 40 miles of pipeline and serves 38 user connections. This project was complete by the end of 2011.
- The Mni Wiconi system received \$16,270,000 for construction and \$10,060,000 for operation and maintenance in FFY 2011 appropriations.
- In 2011, contracts of nearly \$1 million were awarded for the Bad River project area for construction in Haakon and Jackson counties. This project was complete by the end of 2011.
- In FFY 2012, the Mni Wiconi system was allocated \$16,075,000 for construction and \$9,937,000 for operation and maintenance.
- A contract was awarded to Carstensen Contracting to upgrade the automatic meter reading equipment to satellite. The contract was in the amount of almost \$2.1 million. This project was complete in the spring of 2012.
- MicroComm was awarded a contract in the amount of \$324,000 to update the supervisory control and data acquisition system throughout the water distribution system. This contract was completed in 2012.
- The President's FFY 2013 budget included \$23 million for construction of the Mni Wiconi system. This completed the federally authorized ceiling for this project. WR/LJ was allocated \$2.2 million to reach its authorized ceiling. Projects to be completed in FFY 2013 included Elbon Service area and chlorination treatment equipment at Badlands National Park pump station.
- WR/LJ initiated construction of its last pipeline project associated with the federally authorized project by the end of 2013. The Elbon project consists of two booster stations

and pipeline north of Phillip to the service area near Elbon. Construction was complete in 2014.

- Final federal funds allocated to WR/LJ were \$90.275 million. With Bureau of Reclamation costs the total final federal funding ceiling, including the system contribution, was \$91.3 million.
- In June 2014, the Board of Water and Natural Resources passed Resolution #2014-79 certifying completion of the WR/LJ component of the Mni Wiconi Rural Water System. This action served to put the SWRMS loans into repayment. On July 1, 2014, WR/LJ submitted a single payment for the full \$12.5 million in SWRMS loans to complete repayment.
- The 2015 Omnibus Bill (Senate Bill 173) provided for the removal of the Mni Wiconi Rural Water System project from the State Water Resources Management System list. The bill was signed on March 12, 2015, and the project was removed from the SWRMS list.

Perkins County Rural Water System – 2004

- The Perkins County RWS provides quality drinking water to the communities of Lemmon, Bison, and Lodgepole. Additionally, the system provides 185 rural users with domestic and livestock water. The project was originally placed on the State Water Resources Management System list in 1993.
- The State Legislature provided \$50,000 per year in 1993 and 1994 to assist the project with its initial feasibility study and federal authorization. In 1994, a feasibility study was completed and identified hooking up to the Southwest Pipeline Project in North Dakota as the preferred alternative. The Perkins County Rural Water System signed a water service agreement with the North Dakota State Water Commission in May 1996.
- The 1996 State Legislature authorized the construction of the Perkins County RWS project and approved a state cost share commitment of \$1.0 million. The 1996 Legislature also appropriated \$450,000 of the \$1.0 million commitment. In 1997, the State Legislature appropriated the remaining \$550,000 for the Perkins County project, providing the cost share required by North Dakota, to bring water service to the Perkins County area. Perkins County RWS provided \$898,478 of these funds to the North Dakota State Water Commission to make water available at the border. The project was removed in 2000 when the original \$1.0 million state cost share commitment was provided and expended.
- President Clinton signed Public Law 106-136 on December 7, 1999. The federal authorization for construction of the rural water system was originally introduced on August 2, 1996. The legislation provided a 75 percent federal cost share. Federal legislation was reintroduced in 1999. On August 4, 1999, the House Committee on Resources conducted a hearing and amended the authorization. The amended bill passed the House by unanimous consent on October 26, 1999. The bill was sent to the Senate, and on November 22, 1999, the bill passed by unanimous consent.
- In November 2003, the Board of Water and Natural Resources recommended the return of the Perkins County Rural Water System to the State Water Resources Management System list and recommended revising the state cost share commitment to the project to \$2.5

million in grant and \$4.5 million in loan funding. In 2004, the Perkins County Rural Water System was placed on the SWRMS list, and the state cost share commitment of \$2.5 million in grant and \$4.5 million in loan funding was approved by the Legislature.

- Project sponsors held an official groundbreaking on May 1, 2004, in Hettinger, North Dakota. The project began its South Dakota construction with the Lodgepole area distribution system. Construction activities included distribution lines to provide water to nearly 100 sites and the construction of the system's main booster pump station near the North Dakota border.
- Construction was initiated on the main transmission pipelines toward Lemmon and Bison in 2005. Lemmon began receiving water from the Perkins County Rural Water System in September 2005 and Bison in 2006. Rural distribution from the main transmission pipelines continued in 2006 with service being provided in the Lemmon and Shadehill service areas.
- The Perkins County Rural Water System continued to rely heavily on the state funding in 2007, receiving a total of \$2.0 million in state assistance consisting of a \$1.5 million grant and a \$500,000 loan. Federal funding received in 2007 totaled \$358,000. This state and federal funding allowed Perkins County to award its fourth distribution system contract.
- Perkins County Rural Water System received \$500,000 in state funding in 2008 consisting of a \$356,000 loan and a \$144,000 grant. These awards fulfilled the state's cost share commitment to Perkins County.
- Federal funding received in 2008 totaled \$3.0 million. A distribution system contract was awarded in August 2008 for 41 miles of pipeline to serve approximately 45 residential and pasture taps. Additionally in 2008, a 330,000-gallon water storage tank was built at the pump house. It spreads out the water usage so that water from Southwest Water Authority can be used more efficiently.
- Perkins County Rural Water System received approximately \$2.3 million in federal funding in 2009 and approximately \$4.5 million under the federal American Recovery and Reinvestment Act. The funding was partitioned between two phases, Phase VI, with \$1.0 million in funding, and Phase VII, with \$3.5 million in funding. The contract for Phase VI was awarded in August 2009 for 79 miles of pipeline to serve approximately 68 residential and pasture taps. This section of the distribution system was completed in April 2010. Advertisement for bids on Phase VII was completed by the end of year 2009. Phase VII included 168 miles of pipeline to serve approximately 100 residential and pasture taps.
- During the months of April through June 2009, Perkins County Rural Water System conducted a study for an alternative water supply and water treatment plant utilizing the Shadehill Reservoir as a water source. Perkins County Rural Water System has a contract to receive 400 gallons per minute from Southwest Water Authority, and the demand is projected to exceed the contracted amount.
- As part of the 2010 Energy and Water Appropriation bill, Perkins County Rural Water System was approved for \$1 million in funding. In 2010, Perkins County Rural Water System

was awarded \$3.2 million in reallocated American Recovery & Reinvestment Act funding through the Bureau of Reclamation (BoR).

- A \$3.2 million contract was awarded in February 2010 for Phase VII.
- A value engineering study, in conjunction with BoR, was completed in May 2011 for an alternative water supply and water treatment plant.
- Perkins County awarded a \$1.4 million contract in August 2011 for Phase VIII. This phase was completed the end of calendar year 2012.
- The authorized federal funding ceiling for the Perkins County Rural Water System was reached with the FFY 2011 appropriation.
- The Board of Water and Natural Resources awarded a Drinking Water State Revolving Fund loan in the amount of \$131,000 with 100 percent principal forgiveness to Perkins County in June 2012. The award was for a booster station located along Highway 75. In March 2014 the loan was amended to include an additional \$20,000 with 100 percent principal forgiveness to allow Perkins County to install a SCADA system on the booster station.
- In the fall of 2013 construction was started on the Highway 75 booster station project. This is the last component of the federally authorized project and was completed in July 2014.
- In June 2014 the Board of Water and Natural Resources passed Resolution #2014-80 certifying completion of the Perkins County Rural Water System. This action served to put the SWRMS loans into repayment. Perkins County will pay interest only for the first five years starting in 2015 and will make full principal and interest payments beginning in 2020 for the term of the loan.
- The 2015 Omnibus Bill (Senate Bill 173) provided for the removal of the Perkins County Rural Water System project from the State Water Resources Management System list. The bill was signed on March 12, 2015, and the project was removed from the SWRMS list.

Sioux Falls Flood Control Project – 1989

- In 1961, the Corps of Engineers completed a channelization, levee, and diversion system to provide 100 year flood protection on the Big Sioux River and Skunk Creek.
- Because of subsequent flooding events on the Big Sioux River and Skunk Creek, the Corps of Engineers reanalyzed the flood criteria in the early 1980s and determined that the 1 percent chance of flood occurrence was greater than previously established. The Corps then recommended that the levee system be upgraded so that it would continue to provide Sioux Falls with 100-year flood protection on the Big Sioux River and Skunk Creek. Project upgrades included constructing a dam on the Big Sioux River just above the confluence of Skunk Creek as well as raising the levees along the Big Sioux River from Skunk Creek to Interstate 229, raising the levees along Skunk Creek from Marion Road to the Big Sioux River, raising the levees above and along the diversion channel, modifying the spillway chute, replacing the stilling basin, and modifying some bridges.

- The 1992 State Legislature authorized project construction and a state cost share commitment of \$4.55 million. Federal authorization was completed as part of the 1996 Water Resources Development Act on October 12, 1996 (Public Law 104-303). The Act authorizes a \$34.6 million construction project under the Corps of Engineers.
- In 1999, a \$2.2 million federal appropriation was provided to the Corps of Engineers. A Project Cooperation Agreement between the Department of the Army and the city of Sioux Falls for final design work was executed.
- Construction of Phase 1A of the Big Sioux River/Skunk Creek Flood Control Project was completed in 2001 and addressed the spillway and stilling basin area at the outfall of the diversion channel. Later that year bids were accepted on Phase 1B of the project addressing the levies adjacent to Morrell's downstream to Cliff Avenue.
- Sioux Falls continued to work with the Corps of Engineers on final design and construction of the project from 2001 to 2007. Sioux Falls continued to secure required easements and properties for the project.
- Construction of Phase 2A of the project continued in 2007. Phase 2A work included improvements to the levees on the Big Sioux River from 49th Street to Interstate 229.
- Phase 2B of the project was completed in 2008. This work included the levee and associated structures on the east side of the Big Sioux River from 41st Street to 49th Street. The city advanced sufficient funds to the US Army Corps of Engineers to complete Phase 2 work in the next two years. This was an ambitious schedule, but reduced the high cost of flood insurance for many properties now being placed in Flood Zone A of the National Flood Insurance Program.
- Phase 2C raised two miles of existing levees approximately two to five feet in order to provide 100-year flood protection along the Big Sioux River within the city of Sioux Falls. In October 2009, the Corps of Engineers accepted proposals for this phase of the project. Phase 2C of the Sioux Falls Flood Control project was awarded in February 2011 for approximately \$12 million. The project was completed by the end of calendar year 2011.
- In December 2009, the city issued \$27 million in taxable revenue bonds; \$17 million of the total was advanced to the Corps of Engineers for levy and dam construction. The balance was to pay for the 41st Street Bridge project.
- As part of the 2010 Energy and Water Appropriation bill, \$1.84 million was appropriated to the Corps of Engineers for the Sioux Falls Flood Control Project.
- In March 2010, the city of Sioux Falls reconstructed the existing 41st Street bridge in order to raise the levee system. The project was substantially completed in September 2010.
- The 2011 Omnibus Bill appropriated \$3.31 million for project design and construction. This appropriation completed the state's cost share commitment to this project.
- Phase 3 was awarded at \$8.8 million, and work began above the diversion dam and on the diversion channel, where the levees were raised about two to four feet. Phase 3 was completed by the end of calendar year 2012 and is the final phase of construction.

- The Corps of Engineers is in the process of preparing documents for certification of the remaining uncertified levees within the city. Once these documents are complete, FEMA will begin the process of revisiting the flood insurance rate maps within the city limits. Upon completion of the new rate maps, the Sioux Falls Flood Control Project will be complete.
- In 2013, the project reached substantial completion. The new levee system building was built, and all of the gates and posts for the closure structures were received. Testing of the controls for the dam was conducted, and the operation of the gates was successfully completed. The Corps of Engineers has awarded and is completing a new project to replace a deficient drainage structure through the levee next to the Sioux Falls zoo.
- The major work on the levee system has been completed; the Corps of Engineers has submitted the application to FEMA for a physical map revision. The FEMA review and eventual issuing of new flood insurance rate maps should result in 1,500 properties in Sioux Falls being taken out of the floodplain.

Southern Black Hills Water System – 2006

- The 2006 Omnibus Bill amended the State Water Resources Management System to add the Southern Black Hills Water System to the list of preferred, priority objectives for South Dakota. The bill also provided an initial appropriation of \$125,000 to allow the Southern Black Hills Water System to continue activities begun under the Black Hills Hydrology and Water Management Study.
- The project objective is to construct a rural regional water system capable of delivering quality drinking water to rural residents and area communities in Custer, western Fall River, and southern Pennington counties. Communities involved include Custer, Edgemont, Hermosa, Hill City, Hot Springs, Keystone, and Pringle.
- Project sponsors worked with representatives from the Department of Agriculture, Rural Development Program to secure funding for the construction of the North Hot Springs service area. In 2007, negotiations with the city of Hot Springs for a permanent water source failed to produce a contract.
- Local support continued to be strong for the project with area-wide rural signups near 500 individual homes. Additionally, strong interest continues to be expressed by the Custer State Park, the Mount Rushmore National Park, the Crazy Horse Foundation, and the various area communities for water service from the system.
- In 2009, Southern Black Hills Water System secured an initial water source and received a water permit for a future well site. Southern Black Hills Water Systems secured easements for construction of pipeline and a storage reservoir.
- In 2009, Southern Black Hills Water System secured funding through Department of Agriculture, Rural Development Program for Phase I construction.

- The 2010 Omnibus Bill appropriated \$350,000 for the engineering design, preconstruction activities, and construction. The 2010 Omnibus bill established the state cost share commitment at \$12 million.
- In 2010, Southern Black Hills opened bids and awarded three contracts for Phase I of the project. Phase I consisted of a water treatment plant, an underground reservoir, and approximately 30 miles of distribution pipeline. Southern Black Hills received more than \$4.5 million in Rural Development loan and grant funding to assist with Phase I.
- The 2011 Omnibus Bill appropriated \$2,000,000 for the engineering design, preconstruction activities, and construction. These funds were awarded to the project sponsor to continue Phase I construction, Phase II engineering design and preconstruction, and the Cascade Area engineering design and preconstruction.
- In September 2011, Phase I was completed and approximately 200 customers received water.
- The 2012 Omnibus Bill appropriated \$4,000,000 for the engineering design, preconstruction activities, and construction. These funds were awarded to the project sponsor to continue Phase I construction, Phase II engineering design and preconstruction, and the Cascade Area engineering design and preconstruction.
- Final plans and specifications for Phase II of the project were completed in 2012. Phase II will serve approximately 230 customers, consist of 72 miles of pipes, a booster station, and a water storage tank.
- Southern Black Hills was issued a Forest Service Special Use Permit in September 2012. This allows construction and installation of the water transmission pipeline associated with Phase II to cross 2.7 miles of National Forest System lands in the Black Hills National Forest.
- The 2013 Omnibus Bill appropriated \$3,800,000 for the engineering design, preconstruction activities, and construction. These funds were awarded to the project sponsor to continue Phase II engineering design, preconstruction and construction, and the Cascade Area engineering design and preconstruction.
- In May 2013, bids were opened for the Phase II distribution project and the Junction storage tank. The bids were awarded in June of 2013 with construction on both projects starting in September 2013.
- Construction continued in 2014 for both the Phase II distribution project and the Junction storage tank. The original portions of these projects were scheduled for completion in the fall of 2014. The Phase II distribution project added the Red Canyon sub-development to the project. This portion of the project was completed in August of 2015.

Vermillion Basin Flood Control Project – 1987

- The project objective is to address the severe flooding problems in the Vermillion River Basin. The basin covers 2,697 square miles in parts of 14 counties and is about 150 miles long with an average width of about 20 miles.

- In 1993, the Corps of Engineers completed The *Vermillion Basin Flood Control Reconnaissance Report* but failed to identify a feasible federal project. The project sponsors re-evaluated project alternatives for non-federal development. Local project sponsors submitted a pre-application notification for a Federal Emergency Management Agency (FEMA) Hazard Mitigation grant for a *Feasibility Study of Flood Control Alternatives* for the basin. In 1994, more than 70 technical experts met to develop a multi-objective plan to reduce flooding impacts in the Vermillion River Basin. The National Park Service compiled the group's issues and suggestions and formulated the multi-objective plan.
- The Vermillion River Watershed Authority was incorporated in December 1997 and is comprised of representatives from the Clay, Miner, Turner, McCook, and Lake county commissions.
- The Vermillion River Watershed Authority proposed to use FEMA Hazard Mitigation grant funds to widen the channel at the outlet of Lake Thompson and construct a control structure to retain the natural outlet elevation, channel maintenance along 19 miles of the Vermillion River and its tributaries, and wetland restoration and development throughout the basin. The cost benefit ratio for the outlet of Lake Thompson was found to be in error. The ratio was actually less than one; consequently, all FEMA Hazard Mitigation funds were withdrawn. The Authority withdrew its request to set the outlet elevation on Lake Thompson and moved to dissolve after financial records are completed. No activity occurred on the project in 2015.

Recommendations to the Governor and State Legislature

In November 2015, the board conducted a public meeting on the State Water Resources Management System (SWRMS) projects. The board adopted Resolution #2015-109 recommending that all current projects be retained on the SWRMS list. The board also adopted Resolution #2015-110 providing its recommendations to the Governor and the Legislature for the Water and Environment Fund (WEF) and WEF subfunds fiscal year 2017 appropriation levels. A summary of the board's recommendations are summarized below. Full resolutions are in Appendix B.

Table 14 – Board of Water and Natural Resources Funding Recommendations

WATER AND ENVIRONMENT FUND (WEF)	
SWRMS	
Sioux Falls Flood Control Project	\$2,036,375
Statewide Hydrology and Water Management Studies	\$750,000
Big Sioux Flood Control Study (Watertown & Vicinity)	\$225,125
Consolidated Water Facilities Construction Program	\$5,250,000
Solid Waste Management Program	\$2,400,000
WEF SUBFUNDS	
Clean Water State Revolving Fund (SRF) Admin Surcharge Fees	
Water Quality Grants	\$1,300,000
SRF Application and Administration Assistance	\$150,000
Build America Bonds Rebates (BABs Grants)	\$2,750,000
Drinking Water SRF Set-Asides and Admin Surcharge Fees	
SRF Application and Administration Assistance	\$50,000
Local and Small System Technical Assistance	\$150,000
Build America Bonds Rebates (BABs Grants)	\$1,250,000
WEF Subfund Total	\$5,650,000
Total	\$16,311,500

Appendix A

Water and Environment Fund Special Condition Statement

WATER AND ENVIRONMENT FUND

Special Condition Statement

As of 7-1-15

Cash Balance from MSA 6-30-2015		35,008,188
Projected SFY 2016 Revenues		
Capital Construction Fund	12,280,000	
Contractors' Excise Tax	300,000	
Investment Interest (Earned '15 deposited '16)	364,933	
Loan Principal & Interest Payments (Water)	280,000	
Loan Principal & Interest Payments (Solid Waste)	545,000	
Solid Waste Fees	<u>1,750,000</u>	
		<u>15,519,933</u>
Projected Fund Balance Available for Expenditure		<u><u>50,528,122</u></u>
FY2016 Transfer (Per SDCL 1-40-32)		
Environment & Natural Resources Fee Fund	<u>(470,817)</u>	
		(470,817)
Obligations (Signed contract by 7/1/15)		
Consolidated	(32,043,384.65)	
Solid Waste & RLA Grants/Loans	(3,593,248)	
SWRMS Grants/Loans - Major Projects		
Belle Fourche Irrigation District	(2,293,832.92)	
DENR - Aquifer Isotope Analysis	(47,000.00)	
Lewis & Clark Regional Water System	(7,700,000.00)	
Southern Black Hills Water System	<u>(2,046,341.77)</u>	
		(47,723,807)
Expenditures Authorized by the Legislature - No agreement signed		
Consolidated Program Available Authority	(186)	
SWMP/RLA Available Authority	(1,972,182)	
SWRMS Grants/Loans - Major Projects		
Hydrology and Water Management Studies	<u>(203,000)</u>	
		<u>(2,175,368)</u>
Surplus/(Deficit) Funds Available (as of 6/30/16)		<u><u>158,130</u></u>

Appendix B

Board of Water and Natural Resources Resolutions

STATE OF SOUTH DAKOTA
BOARD OF WATER AND NATURAL RESOURCES
RESOLUTION NO. 2015-109

PROVIDING TO THE SOUTH DAKOTA LEGISLATURE AND GOVERNOR, THE BOARD OF WATER AND NATURAL RESOURCES' RECOMMENDATIONS FOR STATE WATER RESOURCES MANAGEMENT SYSTEM DESIGNATION.

WHEREAS, the Board of Water and Natural Resources ("the Board") pursuant to SDCL 46A-1-2, annually provides recommendations to the State Legislature and Governor regarding deletions and additions to the State Water Resources Management System component of the State Water Plan; and

WHEREAS, SDCL 46A-1-2.1 designates the water resource projects included on the State Water Resources Management System component of the State Water Plan that serve as the preferred, priority objectives of the State; and

WHEREAS, the Board has reviewed the list of projects currently included on the State Water Resources Management System component of the State Water Plan; and

WHEREAS, the Board has reviewed the applications submitted from various South Dakota water resource projects for inclusion onto the State Water Plan.

NOW THEREFORE BE IT RESOLVED, that the Board recommends that all water resource projects on the State Water Resources Management System be retained as preferred, priority objectives of the State.

Dated this 5th day of November, 2015

(SEAL)

ATTEST:

BY: /s/ Brad Johnson
Chairman, Board of Water and
Natural Resources

BY: /s/ Todd Bernhard
Secretary, Board of Water and
Natural Resources

STATE OF SOUTH DAKOTA
BOARD OF WATER AND NATURAL RESOURCES
RESOLUTION NO. 2015-110

PROVIDING TO THE SOUTH DAKOTA LEGISLATURE AND GOVERNOR, THE BOARD OF WATER AND NATURAL RESOURCES' RECOMMENDATIONS FOR WATER AND ENVIRONMENT FUND FISCAL YEAR 2017 APPROPRIATION LEVELS.

WHEREAS, SDCL 46A-1-2 provides the means for the planning, funding and construction of a state water plan and creates a State Water Resources Management System component and a State Water Facilities Plan component of the State Water Plan; and

WHEREAS, pursuant to the authority provided in SDCL 46A-1-7, the Board of Water and Natural Resources ("the Board") is responsible for approving all projects placed onto the State Water Facilities Plan component of the State Water Plan, an annual listing of potential water related projects; and

WHEREAS, pursuant to the authority provided in SDCL 46A-1-10, the Board annually provides recommendations to the Governor and the State Legislature regarding deletions and additions to the State Water Resources Management System component of the State Water Plan; and

WHEREAS, pursuant to the authority provided in SDCL 46A-1-12 and 46A-1-13, the Board may recommend state funding levels to the Governor and the State Legislature; and

WHEREAS, the Board has reviewed the projected funding needs of projects on the State Water Resources Management System component of the State Water Plan; and

WHEREAS, the Board has reviewed the projected funding needs of projects on the State Water Facilities Plan component of the State Water Plan; and

WHEREAS, the Board has reviewed potential funding needs of solid waste disposal, recycling, and waste tire projects that may require funding from dedicated fees deposited in the Water and Environment Fund; and

WHEREAS, the Board has reviewed potential funding and technical assistance needs of projects that may require funding from the Clean Water State Revolving Fund Administrative Surcharge fees, Drinking Water State Revolving Fund Set-Asides, Drinking Water State Revolving Fund Administrative Surcharge fees, and federal subsidy payments deposited in the Water and Environment Fund Subfunds; and

WHEREAS, the Board conducted a public hearing and adopted an Intended Use Plan that includes projects that require funding from the Clean Water State Revolving Fund Administrative Surcharge fees, Drinking Water State Revolving Fund Set-Asides, Drinking Water State Revolving Fund Administrative Surcharge fees, and federal subsidy payments deposited in Water and Environment Fund Subfunds; and

WHEREAS, the Board conducted a public meeting on November 5, 2015, to take statements from all interested parties regarding water development and solid waste funding needs.

NOW THEREFORE BE IT RESOLVED, that the Board recommends to the Governor and the State Legislature the following Water and Environment Fund fiscal year 2017 line-item appropriation levels for projects on the State Water Resources Management System:

Big Sioux Flood Control Study (Watertown & Vicinity)	\$ 225,125
Hydrology and Water Management Studies	\$ 750,000
Sioux Falls Flood Control Project	\$ 2,036,375

IT IS FURTHER RESOLVED, that the Board recommends to the Governor and the State Legislature a Water and Environment Fund fiscal year 2017 appropriation level of five million two hundred fifty thousand dollars (\$5,250,000) for the Consolidated Water Facilities Construction Program; and

IT IS FURTHER RESOLVED, that the Board recommends that SDCL 34A-6-85 be amended to delete the waste tire preference and limitations, to delete the preference for landfill projects with volume based fees, and to replace the requirement to award a minimum of fifty percent of solid waste fees for recycling with a general preference for grant and loan awards to recycling projects; and

IT IS FURTHER RESOLVED, that the Board recommends that SDCL 46A-1-67 be amended to provide for Water and Environment Fund loan terms of up to forty years for construction loans, for the useful life of the equipment for equipment loans, or seven years for other purposes; and

IT IS FURTHER RESOLVED, that the Board recommends to the Governor and the State Legislature the Water and Environment Fund fiscal year 2017 appropriation level of two million four hundred thousand dollars (\$2,400,000) for the Solid Waste Management Program and that two hundred fifty thousand dollars (\$250,000) of these funds may be used for the statewide cleanup of waste tires and solid waste; and

IT IS FURTHER RESOLVED, that the Board recommends to the Governor and the State Legislature the following Water and Environment Fund Subfund fiscal year 2017 appropriation levels for the Drinking Water State Revolving Fund Set-Asides, the Clean Water State Revolving Fund Administrative Surcharge fees, the Drinking Water State Revolving Fund Administrative Surcharge fees, and federal subsidy payments approved in the respective 2016 Intended Use Plans for the Clean Water State Revolving Fund (CWSRF) and the Drinking Water State Revolving Fund (DWSRF) programs:

State Revolving Fund Administrative Surcharge Fees

CWSRF Water Quality Grants	\$1,300,000
CWSRF Application and Administration Assistance	\$150,000
DWSRF Application and Administration Assistance	\$50,000

Federal Set-Aside Funds and Federal Subsidy Payments

Small System Technical Assistance	\$150,000
Wastewater Grants	\$2,750,000
Drinking Water Grants	\$1,250,000
WEF Subfund Total:	\$5,650,000

Dated this 5th day of November, 2015

(SEAL)

BY: /s/ Brad Johnson

Chairman, Board of Water and
Natural Resources

ATTEST:

BY: /s/ Todd Bernhard

Secretary, Board of Water and
Natural Resources

180 copies of this document were printed
by the Department of Environment and Natural Resources
at a cost of \$4.74 per copy.